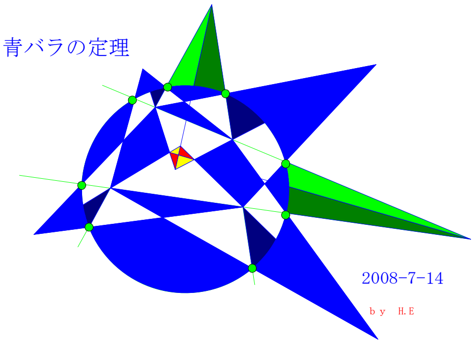
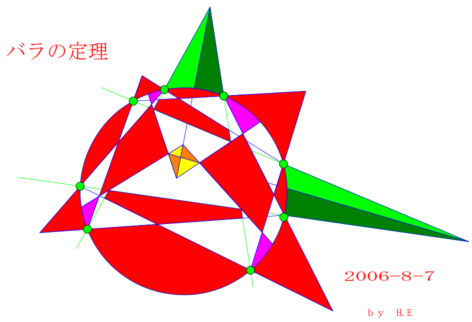
学問とは何か

蛭子井博孝

「学究し、　生きてゆく夢と希望と情熱を、成果に変え、
過去を労い、現在に著し、未来に、愛と理想を開く」

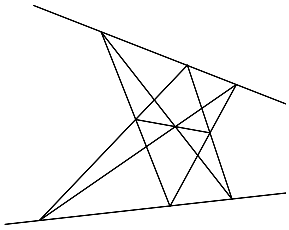
１つ　数学のふるさと
２つ　蛭子井博孝５大作品
３つ　数幾何形学（Mathegeotics）



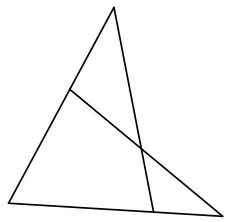


数学のふるさと

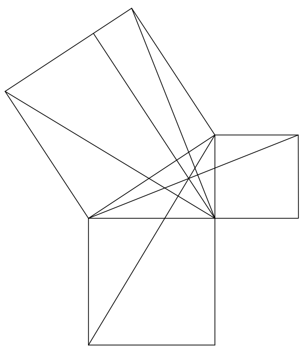
パップスの定理
2 直線上の 3 点がつくる共線定理



メネラウスの定理
三角形の辺と直線の交点が作る
式定理　「A/B*C/D*E/F=−1」



ピタゴラスの定理



ユークリッド原論の三角形【補助線が表す】の合同を証明に用いる
ピタゴラス数、3，4，5：3^2+4^2=5^2 を例に持つ
上図が表す直角三角形の辺に立つ正方形の面積に関する
式「a^2+b^2=c^2」による表される定理

オイラーの自然対数の底と虚数単位と円周率の間の公式
「 e^（i*pi）＋１＝０」

証明に約 4 百年かかったフェルマーワイルの定理
「 x^n+y^n=z^n」は　n が 3 以上の自然数の時　解 x 、 y 、 z を持たない

蛭子井博孝5大作品

数表で、確認できる

連続素数の和の不思議

と

図形で確かめる

6垂線の定理　他

蛭子井博孝著

内容

1．　連続素数｛３，５，７，１１，１３｝
中央だけは平方数にして和をとると初めに見つかる平方数 81
3+5+7^2+11+13=9^2
は、ある性質を持つ　７＋２＝９
この性質を 41 ページの数表にして確認できるようにした。
この性質がどんなものかとその性質に例外があるかどうかは、
全ページ詳しく見ていく以外にない

２．6 垂線の定理　三大図
基本
多角形一般化
無限連鎖化

3. ヘキサゴンの定理図

４．7 点円

５．Doval【点と円からの距離の比が一定な 4 次曲線】の非対称軸の性質図

卵形線研究センター
http://eh85.blogzine.jp/
http://hoval.blogzine.jp/

> #HI−NUM **by** H.EBISUI :

> $c := 0$: **for** h **from** 1 **to** 1081 **do** $h1 := ithprime(h) : h2 := ithprime(h+1) : h3 := ithprime(h+2) : h4 := ithprime(h+3) : h5 := ithprime(h+4) : h6 := ithprime(h+5) : h7 := ithprime(h+6)$: **if** $\text{floor}\left(evalf\left((h1+h2+h3^2+h4+h5)^{\frac{1}{2}}\right)\right)^2 = h1 + h2 + h3^2 + h4 + h5$ **then** $c := c+1 : print\left(SUM5\{[h1[h\ thp], h2, [h3]^2, h4, h5]\}[cnt\ c[[h3][(h+2)\ thp]+2=[h3+2]]] = \left[simplify\left((h1+h2+h3^2+h4+h5)^{\frac{1}{2}}\right)\right]^2\right)$ **fi** :**od**:

$$SUM5\ \{[3_{2\,thp}, 5, [7]^2, 11, 13]\}_{cnt\,1\,[7]_{4\,thp}+2=[9]} = [9]^2$$

$$SUM5\ \{[17_{7\,thp}, 19, [23]^2, 29, 31]\}_{cnt\,2\,[23]_{9\,thp}+2=[25]} = [25]^2$$

$$SUM5\ \{[79_{22\,thp}, 83, [89]^2, 97, 101]\}_{cnt\,3\,[89]_{24\,thp}+2=[91]} = [91]^2$$

$$SUM5\ \{[139_{34\,thp}, 149, [151]^2, 157, 163]\}_{cnt\,4\,[151]_{36\,thp}+2=[153]} = [153]^2$$

$$SUM5\ \{[157_{37\,thp}, 163, [167]^2, 173, 179]\}_{cnt\,5\,[167]_{39\,thp}+2=[169]} = [169]^2$$

$$SUM5\ \{[227_{49\,thp}, 229, [233]^2, 239, 241]\}_{cnt\,6\,[233]_{51\,thp}+2=[235]} = [235]^2$$

$$SUM5\ \{[379_{75\,thp}, 383, [389]^2, 397, 401]\}_{cnt\,7\,[389]_{77\,thp}+2=[391]} = [391]^2$$

$$SUM5\ \{[439_{85\,thp}, 443, [449]^2, 457, 461]\}_{cnt\,8\,[449]_{87\,thp}+2=[451]} = [451]^2$$

$$SUM5\ \{[479_{92\,thp}, 487, [491]^2, 499, 503]\}_{cnt\,9\,[491]_{94\,thp}+2=[493]} = [493]^2$$

$$SUM5\ \{[821_{142\,thp}, 823, [827]^2, 829, 839]\}_{cnt\,10\,[827]_{144\,thp}+2=[829]} = [829]^2$$

$$SUM5\ \{[967_{163\,thp}, 971, [977]^2, 983, 991]\}_{cnt\,11\,[977]_{165\,thp}+2=[979]} = [979]^2$$

$$SUM5\ \{[971_{164\,thp}, 977, [983]^2, 991, 997]\}_{cnt\,12\,[983]_{166\,thp}+2=[985]} = [985]^2$$

$$SUM5\ \{[1093_{183\,thp}, 1097, [1103]^2, 1109, 1117]\}_{cnt\,13\,[1103]_{185\,thp}+2=[1105]} = [1105]^2$$

$$SUM5\left\{\left[1097_{184\,thp},\ 1103,\ [1109]^2,\ 1117,\ 1123\right]\right\}_{cnt\,14\,[1109]_{186\,thp}+2=[1111]} = [1111]^2$$

$$SUM5\left\{\left[1151_{190\,thp},\ 1153,\ [1163]^2,\ 1171,\ 1181\right]\right\}_{cnt\,15\,[1163]_{192\,thp}+2=[1165]} = [1165]^2$$

$$SUM5\left\{\left[1277_{206\,thp},\ 1279,\ [1283]^2,\ 1289,\ 1291\right]\right\}_{cnt\,16\,[1283]_{208\,thp}+2=[1285]} = [1285]^2$$

$$SUM5\left\{\left[1429_{226\,thp},\ 1433,\ [1439]^2,\ 1447,\ 1451\right]\right\}_{cnt\,17\,[1439]_{228\,thp}+2=[1441]} = [1441]^2$$

$$SUM5\left\{\left[1549_{244\,thp},\ 1553,\ [1559]^2,\ 1567,\ 1571\right]\right\}_{cnt\,18\,[1559]_{246\,thp}+2=[1561]} = [1561]^2$$

$$SUM5\left\{\left[1559_{246\,thp},\ 1567,\ [1571]^2,\ 1579,\ 1583\right]\right\}_{cnt\,19\,[1571]_{248\,thp}+2=[1573]} = [1573]^2$$

$$SUM5\left\{\left[1601_{252\,thp},\ 1607,\ [1609]^2,\ 1613,\ 1619\right]\right\}_{cnt\,20\,[1609]_{254\,thp}+2=[1611]} = [1611]^2$$

$$SUM5\left\{\left[1607_{253\,thp},\ 1609,\ [1613]^2,\ 1619,\ 1621\right]\right\}_{cnt\,21\,[1613]_{255\,thp}+2=[1615]} = [1615]^2$$

$$SUM5\left\{\left[1697_{265\,thp},\ 1699,\ [1709]^2,\ 1721,\ 1723\right]\right\}_{cnt\,22\,[1709]_{267\,thp}+2=[1711]} = [1711]^2$$

$$SUM5\left\{\left[1871_{286\,thp},\ 1873,\ [1877]^2,\ 1879,\ 1889\right]\right\}_{cnt\,23\,[1877]_{288\,thp}+2=[1879]} = [1879]^2$$

$$SUM5\left\{\left[2053_{310\,thp},\ 2063,\ [2069]^2,\ 2081,\ 2083\right]\right\}_{cnt\,24\,[2069]_{312\,thp}+2=[2071]} = [2071]^2$$

$$SUM5\left\{\left[2081_{313\,thp},\ 2083,\ [2087]^2,\ 2089,\ 2099\right]\right\}_{cnt\,25\,[2087]_{315\,thp}+2=[2089]} = [2089]^2$$

$$SUM5\left\{\left[2087_{315\,thp},\ 2089,\ [2099]^2,\ 2111,\ 2113\right]\right\}_{cnt\,26\,[2099]_{317\,thp}+2=[2101]} = [2101]^2$$

$$SUM5\left\{\left[2689_{391\,thp},\ 2693,\ [2699]^2,\ 2707,\ 2711\right]\right\}_{cnt\,27\,[2699]_{393\,thp}+2=[2701]} = [2701]^2$$

$$SUM5\left\{\left[3049_{437\,thp},\ 3061,\ [3067]^2,\ 3079,\ 3083\right]\right\}_{cnt\,28\,[3067]_{439\,thp}+2=[3069]} = [3069]^2$$

$$SUM5\left\{\left[3299_{463\,thp},\ 3301,\ [3307]^2,\ 3313,\ 3319\right]\right\}_{cnt\,29\,[3307]_{465\,thp}+2=[3309]} = [3309]^2$$

$$SUM5\left\{\left[3527_{492\,thp},\ 3529,\ [3533]^2,\ 3539,\ 3541\right]\right\}_{cnt\,30\,[3533]_{494\,thp}+2=[3535]} = [3535]^2$$

$$SUM5\left\{\left[3911_{541\ thp}, 3917, [3919]^2, 3923, 3929\right]\right\}_{cnt31_{[3919]_{543\ thp}+2=[3921]}} = [3921]^2$$

$$SUM5\left\{\left[3917_{542\ thp}, 3919, [3923]^2, 3929, 3931\right]\right\}_{cnt32_{[3923]_{544\ thp}+2=[3925]}} = [3925]^2$$

$$SUM5\left\{\left[4093_{564\ thp}, 4099, [4111]^2, 4127, 4129\right]\right\}_{cnt33_{[4111]_{566\ thp}+2=[4113]}} = [4113]^2$$

$$SUM5\left\{\left[4441_{603\ thp}, 4447, [4451]^2, 4457, 4463\right]\right\}_{cnt34_{[4451]_{605\ thp}+2=[4453]}} = [4453]^2$$

$$SUM5\left\{\left[4637_{625\ thp}, 4639, [4643]^2, 4649, 4651\right]\right\}_{cnt35_{[4643]_{627\ thp}+2=[4645]}} = [4645]^2$$

$$SUM5\left\{\left[4787_{643\ thp}, 4789, [4793]^2, 4799, 4801\right]\right\}_{cnt36_{[4793]_{645\ thp}+2=[4795]}} = [4795]^2$$

$$SUM5\left\{\left[4871_{652\ thp}, 4877, [4889]^2, 4903, 4909\right]\right\}_{cnt37_{[4889]_{654\ thp}+2=[4891]}} = [4891]^2$$

$$SUM5\left\{\left[5099_{681\ thp}, 5101, [5107]^2, 5113, 5119\right]\right\}_{cnt38_{[5107]_{683\ thp}+2=[5109]}} = [5109]^2$$

$$SUM5\left\{\left[5153_{687\ thp}, 5167, [5171]^2, 5179, 5189\right]\right\}_{cnt39_{[5171]_{689\ thp}+2=[5173]}} = [5173]^2$$

$$SUM5\left\{\left[5387_{710\ thp}, 5393, [5399]^2, 5407, 5413\right]\right\}_{cnt40_{[5399]_{712\ thp}+2=[5401]}} = [5401]^2$$

$$SUM5\left\{\left[5651_{743\ thp}, 5653, [5657]^2, 5659, 5669\right]\right\}_{cnt41_{[5657]_{745\ thp}+2=[5659]}} = [5659]^2$$

$$SUM5\left\{\left[5693_{750\ thp}, 5701, [5711]^2, 5717, 5737\right]\right\}_{cnt42_{[5711]_{752\ thp}+2=[5713]}} = [5713]^2$$

$$SUM5\left\{\left[5801_{761\ thp}, 5807, [5813]^2, 5821, 5827\right]\right\}_{cnt43_{[5813]_{763\ thp}+2=[5815]}} = [5815]^2$$

$$SUM5\left\{\left[5953_{781\ thp}, 5981, [5987]^2, 6007, 6011\right]\right\}_{cnt44_{[5987]_{783\ thp}+2=[5989]}} = [5989]^2$$

$$SUM5\left\{\left[6067_{791\ thp}, 6073, [6079]^2, 6089, 6091\right]\right\}_{cnt45_{[6079]_{793\ thp}+2=[6081]}} = [6081]^2$$

$$SUM5\left\{\left[6317_{822\ thp}, 6323, [6329]^2, 6337, 6343\right]\right\}_{cnt46_{[6329]_{824\ thp}+2=[6331]}} = [6331]^2$$

$$SUM5\left\{\left[6359_{828\ thp}, 6361, [6367]^2, 6373, 6379\right]\right\}_{cnt47_{[6367]_{830\ thp}+2=[6369]}} = [6369]^2$$

$SUM5\left\{\left[6361_{829\ thp}, 6367, [6373]^2, 6379, 6389\right]\right\}_{cnt48\,[6373]_{831\ thp}+2=[6375]} = [6375]^2$

$SUM5\left\{\left[6961_{894\ thp}, 6967, [6971]^2, 6977, 6983\right]\right\}_{cnt49\,[6971]_{896\ thp}+2=[6973]} = [6973]^2$

$SUM5\left\{\left[6967_{895\ thp}, 6971, [6977]^2, 6983, 6991\right]\right\}_{cnt50\,[6977]_{897\ thp}+2=[6979]} = [6979]^2$

$SUM5\left\{\left[6971_{896\ thp}, 6977, [6983]^2, 6991, 6997\right]\right\}_{cnt51\,[6983]_{898\ thp}+2=[6985]} = [6985]^2$

$SUM5\left\{\left[7001_{901\ thp}, 7013, [7019]^2, 7027, 7039\right]\right\}_{cnt52\,[7019]_{903\ thp}+2=[7021]} = [7021]^2$

$SUM5\left\{\left[7411_{940\ thp}, 7417, [7433]^2, 7451, 7457\right]\right\}_{cnt53\,[7433]_{942\ thp}+2=[7435]} = [7435]^2$

$SUM5\left\{\left[7487_{948\ thp}, 7489, [7499]^2, 7507, 7517\right]\right\}_{cnt54\,[7499]_{950\ thp}+2=[7501]} = [7501]^2$

$SUM5\left\{\left[8053_{1012\ thp}, 8059, [8069]^2, 8081, 8087\right]\right\}_{cnt55\,[8069]_{1014\ thp}+2=[8071]} = [8071]^2$

$SUM5\left\{\left[8353_{1046\ thp}, 8363, [8369]^2, 8377, 8387\right]\right\}_{cnt56\,[8369]_{1048\ thp}+2=[8371]} = [8371]^2$

$SUM5\left\{\left[8669_{1079\ thp}, 8677, [8681]^2, 8689, 8693\right]\right\}_{cnt57\,[8681]_{1081\ thp}+2=[8683]} = [8683]^2$

$SUM5\left\{\left[8681_{1081\ thp}, 8689, [8693]^2, 8699, 8707\right]\right\}_{cnt58\,[8693]_{1083\ thp}+2=[8695]} = [8695]^2$ **(1)**

```
> c := 0 : for h from 1 to 11811 do h1 := ithprime(h) : h2 := ithprime(h + 1) : h3
  := ithprime(h + 2) : h4 := ithprime(h + 3) : h5 := ithprime(h + 4) : h6 := ithprime(h
  + 5) : h7 := ithprime(h + 6) : if floor(evalf((h1 + h2^2 + h3 + h4 + h5)^(1/2)))^2 = h1
  + h2^2 + h3 + h4 + h5 then c := c + 1 : print(SUM5{[h1[h thp], [h2]^2, h3, h4,
  h5]}[cnt c[[h2][(h + 1) thp] + 2 = [h2 + 2]]]
  = [simplify((h1 + h2^2 + h3 + h4 + h5)^(1/2))]^2) fi :od:
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$SUM5\left\{\left[1327_{217\ thp}, [1361]^2, 1367, 1373, 1381\right]\right\}_{cnt1\,[1361]_{218\ thp}+2=[1363]} = [1363]^2$

$SUM5\left\{\left[2069_{312\ thp}, [2081]^2, 2083, 2087, 2089\right]\right\}_{cnt2\,[2081]_{313\ thp}+2=[2083]} = [2083]^2$

$$SUM5\left\{\left[4111_{566\,thp}, [4127]^2, 4129, 4133, 4139\right]\right\}_{cnt\,3_{[4127]_{567\,thp}}+2=[4129]} = [4129]^2$$

$$SUM5\left\{\left[4621_{624\,thp}, [4637]^2, 4639, 4643, 4649\right]\right\}_{cnt\,4_{[4637]_{625\,thp}}+2=[4639]} = [4639]^2$$

$$SUM5\left\{\left[4703_{635\,thp}, [4721]^2, 4723, 4729, 4733\right]\right\}_{cnt\,5_{[4721]_{636\,thp}}+2=[4723]} = [4723]^2$$

$$SUM5\left\{\left[5449_{721\,thp}, [5471]^2, 5477, 5479, 5483\right]\right\}_{cnt\,6_{[5471]_{722\,thp}}+2=[5473]} = [5473]^2$$

$$SUM5\left\{\left[8893_{1108\,thp}, [8923]^2, 8929, 8933, 8941\right]\right\}_{cnt\,7_{[8923]_{1109\,thp}}+2=[8925]} = [8925]^2$$

$$SUM5\left\{\left[13729_{1625\,thp}, [13751]^2, 13757, 13759, 13763\right]\right\}_{cnt\,8_{[13751]_{1626\,thp}}+2=[13753]} = [13753]^2$$

$$SUM5\left\{\left[15629_{1822\,thp}, [15641]^2, 15643, 15647, 15649\right]\right\}_{cnt\,9_{[15641]_{1823\,thp}}+2=[15643]} = [15643]^2$$

$$SUM5\left\{\left[16673_{1929\,thp}, [16691]^2, 16693, 16699, 16703\right]\right\}_{cnt\,10_{[16691]_{1930\,thp}}+2=[16693]} = [16693]^2$$

$$SUM5\left\{\left[18899_{2150\,thp}, [18911]^2, 18913, 18917, 18919\right]\right\}_{cnt\,11_{[18911]_{2151\,thp}}+2=[18913]} = [18913]^2$$

$$SUM5\left\{\left[20443_{2310\,thp}, [20477]^2, 20479, 20483, 20507\right]\right\}_{cnt\,12_{[20477]_{2311\,thp}}+2=[20479]} = [20479]^2$$

$$SUM5\left\{\left[22259_{2492\,thp}, [22271]^2, 22273, 22277, 22279\right]\right\}_{cnt\,13_{[22271]_{2493\,thp}}+2=[22273]} = [22273]^2$$

$$SUM5\left\{\left[25561_{2814\,thp}, [25577]^2, 25579, 25583, 25589\right]\right\}_{cnt\,14_{[25577]_{2815\,thp}}+2=[25579]} = [25579]^2$$

$$SUM5\left\{\left[28979_{3153\,thp}, [29009]^2, 29017, 29021, 29023\right]\right\}_{cnt\,15_{[29009]_{3154\,thp}}+2=[29011]} = [29011]^2$$

$$SUM5\left\{\left[30469_{3290\,thp}, [30491]^2, 30493, 30497, 30509\right]\right\}_{cnt\,16_{[30491]_{3291\,thp}}+2=[30493]}$$

$= [30493]^2$

$SUM5\left\{\left[31159_{3357\ thp}, [31177]^2, 31181, 31183, 31189\right]\right\}_{cnt\,17} [31177]_{3358\ thp} + 2 = [31179]$

$= [31179]^2$

$SUM5\left\{\left[32029_{3436\ thp}, [32051]^2, 32057, 32059, 32063\right]\right\}_{cnt\,18} [32051]_{3437\ thp} + 2 = [32053]$

$= [32053]^2$

$SUM5\left\{\left[35027_{3734\ thp}, [35051]^2, 35053, 35059, 35069\right]\right\}_{cnt\,19} [35051]_{3735\ thp} + 2 = [35053]$

$= [35053]^2$

$SUM5\left\{\left[37339_{3954\ thp}, [37357]^2, 37361, 37363, 37369\right]\right\}_{cnt\,20} [37357]_{3955\ thp} + 2 = [37359]$

$= [37359]^2$

$SUM5\left\{\left[38431_{4053\ thp}, [38447]^2, 38449, 38453, 38459\right]\right\}_{cnt\,21} [38447]_{4054\ thp} + 2 = [38449]$

$= [38449]^2$

$SUM5\left\{\left[41161_{4307\ thp}, [41177]^2, 41179, 41183, 41189\right]\right\}_{cnt\,22} [41177]_{4308\ thp} + 2 = [41179]$

$= [41179]^2$

$SUM5\left\{\left[41813_{4372\ thp}, [41843]^2, 41849, 41851, 41863\right]\right\}_{cnt\,23} [41843]_{4373\ thp} + 2 = [41845]$

$= [41845]^2$

$SUM5\left\{\left[46073_{4767\ thp}, [46091]^2, 46093, 46099, 46103\right]\right\}_{cnt\,24} [46091]_{4768\ thp} + 2 = [46093]$

$= [46093]^2$

$SUM5\left\{\left[48497_{4990\ thp}, [48523]^2, 48527, 48533, 48539\right]\right\}_{cnt\,25} [48523]_{4991\ thp} + 2 = [48525]$

$= [48525]^2$

$SUM5\left\{\left[49499_{5086\ thp}, [49523]^2, 49529, 49531, 49537\right]\right\}_{cnt\,26} [49523]_{5087\ thp} + 2 = [49525]$

$= [49525]^2$

$SUM5\left\{\left[49639_{5099\ thp}, [49663]^2, 49667, 49669, 49681\right]\right\}_{cnt\,27} [49663]_{5100\ thp} + 2 = [49665]$

$= [49665]^2$

$SUM5\left\{\left[51329_{5250\ thp}, [51341]^2, 51343, 51347, 51349\right]\right\}_{cnt\,28} [51341]_{5251\ thp} + 2 = [51343]$

$= [51343]^2$

$SUM5\left\{\left[53569_{5458\ thp}, [53591]^2, 53593, 53597, 53609\right]\right\}_{cnt\,29}$ $[53591]_{5459\ thp} + 2 = [53593]$

$= [53593]^2$

$SUM5\left\{\left[54679_{5565\ thp}, [54709]^2, 54713, 54721, 54727\right]\right\}_{cnt\,30}$ $[54709]_{5566\ thp} + 2 = [54711]$

$= [54711]^2$

$SUM5\left\{\left[55171_{5606\ thp}, [55201]^2, 55207, 55213, 55217\right]\right\}_{cnt\,31}$ $[55201]_{5607\ thp} + 2 = [55203]$

$= [55203]^2$

$SUM5\left\{\left[62423_{6269\ thp}, [62459]^2, 62467, 62473, 62477\right]\right\}_{cnt\,32}$ $[62459]_{6270\ thp} + 2 = [62461]$

$= [62461]^2$

$SUM5\left\{\left[69739_{6914\ thp}, [69761]^2, 69763, 69767, 69779\right]\right\}_{cnt\,33}$ $[69761]_{6915\ thp} + 2 = [69763]$

$= [69763]^2$

$SUM5\left\{\left[70823_{7011\ thp}, [70841]^2, 70843, 70849, 70853\right]\right\}_{cnt\,34}$ $[70841]_{7012\ thp} + 2 = [70843]$

$= [70843]^2$

$SUM5\left\{\left[71453_{7078\ thp}, [71471]^2, 71473, 71479, 71483\right]\right\}_{cnt\,35}$ $[71471]_{7079\ thp} + 2 = [71473]$

$= [71473]^2$

$SUM5\left\{\left[72139_{7141\ thp}, [72161]^2, 72167, 72169, 72173\right]\right\}_{cnt\,36}$ $[72161]_{7142\ thp} + 2 = [72163]$

$= [72163]^2$

$SUM5\left\{\left[72431_{7166\ thp}, [72461]^2, 72467, 72469, 72481\right]\right\}_{cnt\,37}$ $[72461]_{7167\ thp} + 2 = [72463]$

$= [72463]^2$

$SUM5\left\{\left[75583_{7447\ thp}, [75611]^2, 75617, 75619, 75629\right]\right\}_{cnt\,38}$ $[75611]_{7448\ thp} + 2 = [75613]$

$= [75613]^2$

$SUM5\left\{\left[77249_{7589\ thp}, [77261]^2, 77263, 77267, 77269\right]\right\}_{cnt\,39}$ $[77261]_{7590\ thp} + 2 = [77263]$

$= [77263]^2$

$SUM5\left\{\left[80761_{7904\ thp}, [80777]^2, 80779, 80783, 80789\right]\right\}_{cnt\,40}$ $[80777]_{7905\ thp} + 2 = [80779]$

$= [80779]^2$

$SUM5\left\{\left[81463_{7970\ thp}, [81509]^2, 81517, 81527, 81533\right]\right\}_{cnt41\ [81509]_{7971\ thp}+2=[81511]}$

$= [81511]^2$

$SUM5\left\{\left[82729_{8086\ thp}, [82757]^2, 82759, 82763, 82781\right]\right\}_{cnt42\ [82757]_{8087\ thp}+2=[82759]}$

$= [82759]^2$

$SUM5\left\{\left[84263_{8215\ thp}, [84299]^2, 84307, 84313, 84317\right]\right\}_{cnt43\ [84299]_{8216\ thp}+2=[84301]}$

$= [84301]^2$

$SUM5\left\{\left[85793_{8347\ thp}, [85817]^2, 85819, 85829, 85831\right]\right\}_{cnt44\ [85817]_{8348\ thp}+2=[85819]}$

$= [85819]^2$

$SUM5\left\{\left[90313_{8746\ thp}, [90353]^2, 90359, 90371, 90373\right]\right\}_{cnt45\ [90353]_{8747\ thp}+2=[90355]}$

$= [90355]^2$

$SUM5\left\{\left[96703_{9309\ thp}, [96731]^2, 96737, 96739, 96749\right]\right\}_{cnt46\ [96731]_{9310\ thp}+2=[96733]}$

$= [96733]^2$

$SUM5\left\{\left[97829_{9401\ thp}, [97841]^2, 97843, 97847, 97849\right]\right\}_{cnt47\ [97841]_{9402\ thp}+2=[97843]}$

$= [97843]^2$

$SUM5\left\{\left[98689_{9474\ thp}, [98711]^2, 98713, 98717, 98729\right]\right\}_{cnt48\ [98711]_{9475\ thp}+2=[98713]}$

$= [98713]^2$

$SUM5\left\{\left[99119_{9516\ thp}, [99131]^2, 99133, 99137, 99139\right]\right\}_{cnt49\ [99131]_{9517\ thp}+2=[99133]}$

$= [99133]^2$

$SUM5\left\{\left[102259_{9796\ thp}, [102293]^2, 102299, 102301, 102317\right]\right\}_{cnt50\ [102293]_{9797\ thp}+2=[102295]} = [102295]^2$

$SUM5\left\{\left[104417_{9971\ thp}, [104459]^2, 104471, 104473, 104479\right]\right\}_{cnt51\ [104459]_{9972\ thp}+2=[104461]} = [104461]^2$

$SUM5\left\{\left[111539_{10580\ thp}, [111577]^2, 111581, 111593, 111599\right]\right\}_{cnt52\ [111577]_{10581\ thp}+2=[111579]} = [111579]^2$

$$SUM5\left\{\left[111799_{10602\,thp},\ [111821]^2,\ 111827,\ 111829,\ 111833\right]\right\}_{cnt\,53\,[111821]_{10603\,thp}+2=[111823]}=[111823]^2$$

$$SUM5\left\{\left[113063_{10710\,thp},\ [113081]^2,\ 113083,\ 113089,\ 113093\right]\right\}_{cnt\,54\,[113081]_{10711\,thp}+2=[113083]}=[113083]^2$$

$$SUM5\left\{\left[114617_{10839\,thp},\ [114641]^2,\ 114643,\ 114649,\ 114659\right]\right\}_{cnt\,55\,[114641]_{10840\,thp}+2=[114643]}=[114643]^2$$

$$SUM5\left\{\left[120121_{11313\,thp},\ [120157]^2,\ 120163,\ 120167,\ 120181\right]\right\}_{cnt\,56\,[120157]_{11314\,thp}+2=[120159]}=[120159]^2$$

$$SUM5\left\{\left[120779_{11367\,thp},\ [120811]^2,\ 120817,\ 120823,\ 120829\right]\right\}_{cnt\,57\,[120811]_{11368\,thp}+2=[120813]}=[120813]^2$$

$$SUM5\left\{\left[125899_{11811\,thp},\ [125921]^2,\ 125927,\ 125929,\ 125933\right]\right\}_{cnt\,58\,[125921]_{11812\,thp}+2=[125923]}=[125923]^2 \qquad \textbf{(2)}$$

> $c := 0$: **for** h **from** 1 **to** 28885 **do** $h1 := ithprime(h) : h2 := ithprime(h+1) : h3 := ithprime(h+2) : h4 := ithprime(h+3) : h5 := ithprime(h+4) : h6 := ithprime(h+5) : h7 := ithprime(h+6)$: **if** $\operatorname{floor}\left(evalf\left(\left(h1+h2+h3+h4^2+h5\right)^{\frac{1}{2}}\right)\right)^2 = h1+h2+h3+h4^2+h5$ **then** $c := c+1 : print\left(SUM5\{[h1[h\ thp], h2, h3, [h4]^2, h5]\}[cnt\ c[[h4][(h+3)\ thp]+2=[h4+2]]] = \left[simplify\left(\left(h1+h2+h3+h4^2+h5\right)^{\frac{1}{2}}\right)\right]^2\right)$ **fi** :**od**:

$$SUM5\left\{\left[1657_{260\,thp},\ 1663,\ 1667,\ [1669]^2,\ 1693\right]\right\}_{cnt\,1\,[1669]_{263\,thp}+2=[1671]}=[1671]^2$$

$$SUM5\left\{\left[2957_{426\,thp},\ 2963,\ 2969,\ [2971]^2,\ 2999\right]\right\}_{cnt\,2\,[2971]_{429\,thp}+2=[2973]}=[2973]^2$$

$$SUM5\left\{\left[4513_{612\,thp},\ 4517,\ 4519,\ [4523]^2,\ 4547\right]\right\}_{cnt\,3\,[4523]_{615\,thp}+2=[4525]}=[4525]^2$$

$$SUM5\left\{\left[5227_{694\,thp},\ 5231,\ 5233,\ [5237]^2,\ 5261\right]\right\}_{cnt\,4\,[5237]_{697\,thp}+2=[5239]}=[5239]^2$$

$$SUM5\left\{\left[5737_{754\,thp},\ 5741,\ 5743,\ [5749]^2,\ 5779\right]\right\}_{cnt\,5\,[5749]_{757\,thp}+2=[5751]}=[5751]^2$$

$SUM5\left\{\left[7741_{982\ thp}, 7753, 7757, [7759]^2, 7789\right]\right\}_{cnt6\ [7759]_{985\ thp}+2=[7761]} = [7761]^2$

$SUM5\left\{\left[16183_{1880\ thp}, 16187, 16189, [16193]^2, 16217\right]\right\}_{cnt7\ [16193]_{1883\ thp}+2=[16195]}$

$= [16195]^2$

$SUM5\left\{\left[18787_{2143\ thp}, 18793, 18797, [18803]^2, 18839\right]\right\}_{cnt8\ [18803]_{2146\ thp}+2=[18805]}$

$= [18805]^2$

$SUM5\left\{\left[21601_{2426\ thp}, 21611, 21613, [21617]^2, 21647\right]\right\}_{cnt9\ [21617]_{2429\ thp}+2=[21619]}$

$= [21619]^2$

$SUM5\left\{\left[42397_{4432\ thp}, 42403, 42407, [42409]^2, 42433\right]\right\}_{cnt10\ [42409]_{4435\ thp}+2=[42411]}$

$= [42411]^2$

$SUM5\left\{\left[46091_{4768\ thp}, 46093, 46099, [46103]^2, 46133\right]\right\}_{cnt11\ [46103]_{4771\ thp}+2=[46105]}$

$= [46105]^2$

$SUM5\left\{\left[52369_{5352\ thp}, 52379, 52387, [52391]^2, 52433\right]\right\}_{cnt12\ [52391]_{5355\ thp}+2=[52393]}$

$= [52393]^2$

$SUM5\left\{\left[68437_{6803\ thp}, 68443, 68447, [68449]^2, 68473\right]\right\}_{cnt13\ [68449]_{6806\ thp}+2=[68451]}$

$= [68451]^2$

$SUM5\left\{\left[79621_{7800\ thp}, 79627, 79631, [79633]^2, 79657\right]\right\}_{cnt14\ [79633]_{7803\ thp}+2=[79635]}$

$= [79635]^2$

$SUM5\left\{\left[79889_{7826\ thp}, 79901, 79903, [79907]^2, 79939\right]\right\}_{cnt15\ [79907]_{7829\ thp}+2=[79909]}$

$= [79909]^2$

$SUM5\left\{\left[85837_{8352\ thp}, 85843, 85847, [85853]^2, 85889\right]\right\}_{cnt16\ [85853]_{8355\ thp}+2=[85855]}$

$= [85855]^2$

$SUM5\left\{\left[87547_{8499\ thp}, 87553, 87557, [87559]^2, 87583\right]\right\}_{cnt17\ [87559]_{8502\ thp}+2=[87561]}$

$= [87561]^2$

$$SUM5\left\{\left[94109_{9079\,thp}, 94111, 94117, [94121]^2, 94151\right]\right\}_{cnt\,18_{[94121]_{9082\,thp}}+2=[94123]} = [94123]^2$$

$$SUM5\left\{\left[101527_{9723\,thp}, 101531, 101533, [101537]^2, 101561\right]\right\}_{cnt\,19_{[101537]_{9726\,thp}}+2=[101539]} = [101539]^2$$

$$SUM5\left\{\left[106207_{10121\,thp}, 106213, 106217, [106219]^2, 106243\right]\right\}_{cnt\,20_{[106219]_{10124\,thp}}+2=[106221]} = [106221]^2$$

$$SUM5\left\{\left[110807_{10516\,thp}, 110813, 110819, [110821]^2, 110849\right]\right\}_{cnt\,21_{[110821]_{10519\,thp}}+2=[110823]} = [110823]^2$$

$$SUM5\left\{\left[127859_{11977\,thp}, 127867, 127873, [127877]^2, 127913\right]\right\}_{cnt\,22_{[127877]_{11980\,thp}}+2=[127879]} = [127879]^2$$

$$SUM5\left\{\left[131303_{12268\,thp}, 131311, 131317, [131321]^2, 131357\right]\right\}_{cnt\,23_{[131321]_{12271\,thp}}+2=[131323]} = [131323]^2$$

$$SUM5\left\{\left[132529_{12371\,thp}, 132533, 132541, [132547]^2, 132589\right]\right\}_{cnt\,24_{[132547]_{12374\,thp}}+2=[132549]} = [132549]^2$$

$$SUM5\left\{\left[136987_{12758\,thp}, 136991, 136993, [136999]^2, 137029\right]\right\}_{cnt\,25_{[136999]_{12761\,thp}}+2=[137001]} = [137001]^2$$

$$SUM5\left\{\left[155069_{14278\,thp}, 155081, 155083, [155087]^2, 155119\right]\right\}_{cnt\,26_{[155087]_{14281\,thp}}+2=[155089]} = [155089]^2$$

$$SUM5\left\{\left[160081_{14692\,thp}, 160087, 160091, [160093]^2, 160117\right]\right\}_{cnt\,27_{[160093]_{14695\,thp}}+2=[160095]} = [160095]^2$$

$$SUM5\left\{\left[162517_{14886\,thp}, 162523, 162527, [162529]^2, 162553\right]\right\}_{cnt\,28_{[162529]_{14889\,thp}}+2=[162531]} = [162531]^2$$

$$SUM5\left\{\left[171043_{15588\,thp}, 171047, 171049, [171053]^2, 171077\right]\right\}_{cnt\,29_{[171053]_{15591\,thp}}+2=[171055]} = [171055]^2$$

$$SUM5\left\{\left[173773_{15813\,thp}, 173777, 173779, [173783]^2, 173807\right]\right\}_{cnt\,30_{[173783]_{15816\,thp}}+2=[173785]} = [173785]^2$$

$$SUM5\left\{\left[183509_{16626\,thp}, 183511, 183523, [183527]^2, 183569\right]\right\}_{cnt\,31\;[183527]_{16629\,thp}+2=[183529]} = [183529]^2$$

$$SUM5\left\{\left[189041_{17086\,thp}, 189043, 189061, [189067]^2, 189127\right]\right\}_{cnt\,32\;[189067]_{17089\,thp}+2=[189069]} = [189069]^2$$

$$SUM5\left\{\left[190699_{17220\,thp}, 190709, 190711, [190717]^2, 190753\right]\right\}_{cnt\,33\;[190717]_{17223\,thp}+2=[190719]} = [190719]^2$$

$$SUM5\left\{\left[191827_{17314\,thp}, 191831, 191833, [191837]^2, 191861\right]\right\}_{cnt\,34\;[191837]_{17317\,thp}+2=[191839]} = [191839]^2$$

$$SUM5\left\{\left[195913_{17649\,thp}, 195919, 195929, [195931]^2, 195967\right]\right\}_{cnt\,35\;[195931]_{17652\,thp}+2=[195933]} = [195933]^2$$

$$SUM5\left\{\left[196181_{17674\,thp}, 196187, 196193, [196201]^2, 196247\right]\right\}_{cnt\,36\;[196201]_{17677\,thp}+2=[196203]} = [196203]^2$$

$$SUM5\left\{\left[206933_{18543\,thp}, 206939, 206951, [206953]^2, 206993\right]\right\}_{cnt\,37\;[206953]_{18546\,thp}+2=[206955]} = [206955]^2$$

$$SUM5\left\{\left[212671_{19023\,thp}, 212677, 212683, [212701]^2, 212777\right]\right\}_{cnt\,38\;[212701]_{19026\,thp}+2=[212703]} = [212703]^2$$

$$SUM5\left\{\left[213637_{19100\,thp}, 213641, 213649, [213659]^2, 213713\right]\right\}_{cnt\,39\;[213659]_{19103\,thp}+2=[213661]} = [213661]^2$$

$$SUM5\left\{\left[215179_{19223\,thp}, 215183, 215191, [215197]^2, 215239\right]\right\}_{cnt\,40\;[215197]_{19226\,thp}+2=[215199]} = [215199]^2$$

$$SUM5\left\{\left[219971_{19615\,thp}, 219977, 219979, [219983]^2, 220009\right]\right\}_{cnt\,41\;[219983]_{19618\,thp}+2=[219985]} = [219985]^2$$

$$SUM5\left\{\left[221941_{19770\,thp}, 221951, 221953, [221957]^2, 221987\right]\right\}_{cnt\,42\;[221957]_{19773\,thp}+2=[221959]} = [221959]^2$$

$$SUM5\left\{\left[222163_{19794\,thp}, 222193, 222197, [222199]^2, 222247\right]\right\}_{cnt\,43\;[222199]_{19797\,thp}+2=[222201]} = [222201]^2$$

$SUM5\left\{\left[230551_{20486\,thp}, 230561, 230563, [230567]^2, 230597\right]\right\}_{cnt\,44\;[230567]_{20489\,thp}+2=[230569]} = [230569]^2$

$SUM5\left\{\left[242797_{21455\,thp}, 242807, 242813, [242819]^2, 242863\right]\right\}_{cnt\,45\;[242819]_{21458\,thp}+2=[242821]} = [242821]^2$

$SUM5\left\{\left[243577_{21513\,thp}, 243583, 243587, [243589]^2, 243613\right]\right\}_{cnt\,46\;[243589]_{21516\,thp}+2=[243591]} = [243591]^2$

$SUM5\left\{\left[257981_{22672\,thp}, 257987, 257989, [257993]^2, 258019\right]\right\}_{cnt\,47\;[257993]_{22675\,thp}+2=[257995]} = [257995]^2$

$SUM5\left\{\left[272777_{23870\,thp}, 272807, 272809, [272813]^2, 272863\right]\right\}_{cnt\,48\;[272813]_{23873\,thp}+2=[272815]} = [272815]^2$

$SUM5\left\{\left[282091_{24612\,thp}, 282097, 282101, [282103]^2, 282127\right]\right\}_{cnt\,49\;[282103]_{24615\,thp}+2=[282105]} = [282105]^2$

$SUM5\left\{\left[300581_{26042\,thp}, 300583, 300589, [300593]^2, 300623\right]\right\}_{cnt\,50\;[300593]_{26045\,thp}+2=[300595]} = [300595]^2$

$SUM5\left\{\left[301747_{26141\,thp}, 301751, 301753, [301759]^2, 301789\right]\right\}_{cnt\,51\;[301759]_{26144\,thp}+2=[301761]} = [301761]^2$

$SUM5\left\{\left[311677_{26926\,thp}, 311681, 311683, [311687]^2, 311711\right]\right\}_{cnt\,52\;[311687]_{26929\,thp}+2=[311689]} = [311689]^2$

$SUM5\left\{\left[312931_{27027\,thp}, 312937, 312941, [312943]^2, 312967\right]\right\}_{cnt\,53\;[312943]_{27030\,thp}+2=[312945]} = [312945]^2$

$SUM5\left\{\left[316567_{27319\,thp}, 316571, 316577, [316583]^2, 316621\right]\right\}_{cnt\,54\;[316583]_{27322\,thp}+2=[316585]} = [316585]^2$

$SUM5\left\{\left[317263_{27377\,thp}, 317267, 317269, [317279]^2, 317321\right]\right\}_{cnt\,55\;[317279]_{27380\,thp}+2=[317281]} = [317281]^2$

$SUM5\left\{\left[330427_{28441\,thp}, 330431, 330433, [330439]^2, 330469\right]\right\}_{cnt\,56\;[330439]_{28444\,thp}+2=[330441]} = [330441]^2$

$$SUM5\left\{\left[331543_{28528\,thp}, 331547, 331549, [331553]^2, 331577\right]\right\}_{cnt\,57\,[331553]_{28531\,thp}+2=[331555]} = [331555]^2$$

$$SUM5\left\{\left[333097_{28646\,thp}, 333101, 333103, [333107]^2, 333131\right]\right\}_{cnt\,58\,[333107]_{28649\,thp}+2=[333109]} = [333109]^2 \quad (3)$$

> $c := 0$: **for** he **from** 1 **to** 8 **do** $c := 0$: **for** h **from** 0 **to** 10000 **do** $S := 0$:**for** e **from** 1 **to** $4\cdot he + 1$ **do** $S := S + ithprime(h+e)$:**od**: $S := S - ithprime(h+2\cdot he+1) + ithprime(h+2\cdot he+1)^2$:**if** $\text{floor}\left(evalf\left(S^{\frac{1}{2}}\right)\right)^2 = S$ **then** $c := c+1$: **if** $c < 9$ **then** $print\Big(SUM[4\cdot he+1][start[(h+1)thp]]\{[seq(ithprime(h+j), j=1..2\cdot he), [ithprime(h+2\cdot he+1)[(h+2\cdot he+1)\ thp]]^2, seq(ithprime(h+j), j=(2\cdot he+2)..(4\cdot he+1))]\}[[cnt\ c][[ithprime(h+2\cdot he+1)][(h+2\cdot he+1)\ thp]+2\cdot he = [ithprime(h+2\cdot he+1)+2\cdot he]]] = \left[simplify\left(S^{\frac{1}{2}}\right)\right]^2\Big)$: $print(\ )$ **fi**:**fi** :**od**:**od**:

$$SUM_{5_{start_{2\,thp}}}\left\{\left[3, 5, [7_{4\,thp}]^2, 11, 13\right]\right\}_{[cnt]_{[7]_{4\,thp}+2=[9]}} = [9]^2$$

$$SUM_{5_{start_{7\,thp}}}\left\{\left[17, 19, [23_{9\,thp}]^2, 29, 31\right]\right\}_{[2\,cnt]_{[23]_{9\,thp}+2=[25]}} = [25]^2$$

$$SUM_{5_{start_{22\,thp}}}\left\{\left[79, 83, [89_{24\,thp}]^2, 97, 101\right]\right\}_{[3\,cnt]_{[89]_{24\,thp}+2=[91]}} = [91]^2$$

$$SUM_{5_{start_{34\,thp}}}\left\{\left[139, 149, [151_{36\,thp}]^2, 157, 163\right]\right\}_{[4\,cnt]_{[151]_{36\,thp}+2=[153]}} = [153]^2$$

$$SUM_{5_{start_{37\,thp}}}\left\{\left[157, 163, [167_{39\,thp}]^2, 173, 179\right]\right\}_{[5\,cnt]_{[167]_{39\,thp}+2=[169]}} = [169]^2$$

$$SUM_{5_{start_{49\,thp}}}\left\{\left[227, 229, [233_{51\,thp}]^2, 239, 241\right]\right\}_{[6\,cnt]_{[233]_{51\,thp}+2=[235]}} = [235]^2$$

$$SUM_{5_{start_{75\,thp}}}\left\{\left[379, 383, [389_{77\,thp}]^2, 397, 401\right]\right\}_{[7\,cnt]_{[389]_{77\,thp}+2=[391]}} = [391]^2$$

$$SUM_{5_{start_{85\,thp}}}\left\{\left[439, 443, [449_{87\,thp}]^2, 457, 461\right]\right\}_{[8\,cnt]_{[449]_{87\,thp}+2=[451]}} = [451]^2$$

$$SUM_{9_{start_{4\,thp}}} \left\{ \left[7, 11, 13, 17, \left[19_{8\,thp}\right]^2, 23, 29, 31, 37 \right] \right\}_{[cnt]_{[19]_{8\,thp}} + 4 = [23]} = [23]^2$$

$$SUM_{9_{start_{11\,thp}}} \left\{ \left[31, 37, 41, 43, \left[47_{15\,thp}\right]^2, 53, 59, 61, 67 \right] \right\}_{[2\,cnt]_{[47]_{15\,thp}} + 4 = [51]} = [51]^2$$

$$SUM_{9_{start_{19\,thp}}} \left\{ \left[67, 71, 73, 79, \left[83_{23\,thp}\right]^2, 89, 97, 101, 103 \right] \right\}_{[3\,cnt]_{[83]_{23\,thp}} + 4 = [87]} = [87]^2$$

$$SUM_{9_{start_{30\,thp}}} \left\{ \left[113, 127, 131, 137, \left[139_{34\,thp}\right]^2, 149, 151, 157, 163 \right] \right\}_{[4\,cnt]_{[139]_{34\,thp}} + 4 = [143]} = [143]^2$$

$$SUM_{9_{start_{58\,thp}}} \left\{ \left[271, 277, 281, 283, \left[293_{62\,thp}\right]^2, 307, 311, 313, 317 \right] \right\}_{[5\,cnt]_{[293]_{62\,thp}} + 4 = [297]} = [297]^2$$

$$SUM_{9_{start_{68\,thp}}} \left\{ \left[337, 347, 349, 353, \left[359_{72\,thp}\right]^2, 367, 373, 379, 383 \right] \right\}_{[6\,cnt]_{[359]_{72\,thp}} + 4 = [363]} = [363]^2$$

$$SUM_{9_{start_{73\,thp}}} \left\{ \left[367, 373, 379, 383, \left[389_{77\,thp}\right]^2, 397, 401, 409, 419 \right] \right\}_{[7\,cnt]_{[389]_{77\,thp}} + 4 = [393]} = [393]^2$$

$$SUM_{9_{start_{171\,thp}}} \left\{ \left[1019, 1021, 1031, 1033, \left[1039_{175\,thp}\right]^2, 1049, 1051, 1061, 1063 \right] \right\}_{[8\,cnt]_{[1039]_{175\,thp}} + 4 = [1043]} = [1043]^2$$

$$SUM_{13_{start_{471\,thp}}} \left\{ \left[3343, 3347, 3359, 3361, 3371, 3373, \left[3389_{477\,thp}\right]^2, 3391, 3407, 3413, 3433, 3449, 3457 \right] \right\}_{[cnt]_{[3389]_{477\,thp}} + 6 = [3395]} = [3395]^2$$

$$SUM_{13_{start_{473\,thp}}} \left\{ \left[3359, 3361, 3371, 3373, 3389, 3391, \left[3407_{479\,thp}\right]^2, 3413, 3433, 3449,$$

$3457, 3461, 3463]\}_{[2\,cnt]_{[3407]_{479\,thp}}+6=[3413]} = [3413]^2$

$SUM_{13_{start_{697\,thp}}}\{[5237, 5261, 5273, 5279, 5281, 5297, [5303_{703\,thp}]^2, 5309, 5323, 5333,$

$5347, 5351, 5381]\}_{[3\,cnt]_{[5303]_{703\,thp}}+6=[5309]} = [5309]^2$

$SUM_{13_{start_{745\,thp}}}\{[5657, 5659, 5669, 5683, 5689, 5693, [5701_{751\,thp}]^2, 5711, 5717, 5737,$

$5741, 5743, 5749]\}_{[4\,cnt]_{[5701]_{751\,thp}}+6=[5707]} = [5707]^2$

$SUM_{13_{start_{797\,thp}}}\{[6113, 6121, 6131, 6133, 6143, 6151, [6163_{803\,thp}]^2, 6173, 6197, 6199,$

$6203, 6211, 6217]\}_{[5\,cnt]_{[6163]_{803\,thp}}+6=[6169]} = [6169]^2$

$SUM_{13_{start_{892\,thp}}}\{[6949, 6959, 6961, 6967, 6971, 6977, [6983_{898\,thp}]^2, 6991, 6997, 7001,$

$7013, 7019, 7027]\}_{[6\,cnt]_{[6983]_{898\,thp}}+6=[6989]} = [6989]^2$

$SUM_{13_{start_{976\,thp}}}\{[7691, 7699, 7703, 7717, 7723, 7727, [7741_{982\,thp}]^2, 7753, 7757, 7759,$

$7789, 7793, 7817]\}_{[7\,cnt]_{[7741]_{982\,thp}}+6=[7747]} = [7747]^2$

$SUM_{13_{start_{1071\,thp}}}\{[8599, 8609, 8623, 8627, 8629, 8641, [8647_{1077\,thp}]^2, 8663, 8669, 8677,$

$8681, 8689, 8693]\}_{[8\,cnt]_{[8647]_{1077\,thp}}+6=[8653]} = [8653]^2$

$SUM_{17_{start_{52\,thp}}}\{[239, 241, 251, 257, 263, 269, 271, 277, [281_{60\,thp}]^2, 283, 293, 307, 311,$

$313, 317, 331, 337]\}_{[cnt]_{[281]_{60\,thp}}+8=[289]} = [289]^2$

$SUM_{17_{start_{172\,thp}}}\{[1021, 1031, 1033, 1039, 1049, 1051, 1061, 1063, [1069_{180\,thp}]^2, 1087,$

$1091, 1093, 1097, 1103, 1109, 1117, 1123]\}_{[2\,cnt]_{[1069]_{180\,thp}}+8=[1077]} = [1077]^2$

$SUM_{17_{start_{469\ thp}}}\{[3329, 3331, 3343, 3347, 3359, 3361, 3371, 3373, [3389_{477\ thp}]^2, 3391, 3407, 3413, 3433, 3449, 3457, 3461, 3463]\}_{[3\ cnt]_{[3389]_{477\ thp}}+8=[3397]} = [3397]^2$

$SUM_{17_{start_{494\ thp}}}\{[3533, 3539, 3541, 3547, 3557, 3559, 3571, 3581, [3583_{502\ thp}]^2, 3593, 3607, 3613, 3617, 3623, 3631, 3637, 3643]\}_{[4\ cnt]_{[3583]_{502\ thp}}+8=[3591]} = [3591]^2$

$SUM_{17_{start_{1575\ thp}}}\{[13249, 13259, 13267, 13291, 13297, 13309, 13313, 13327, [13331_{1583\ thp}]^2, 13337, 13339, 13367, 13381, 13397, 13399, 13411, 13417]\}_{[5\ cnt]_{[13331]_{1583\ thp}}+8=[13339]} = [13339]^2$

$SUM_{17_{start_{1615\ thp}}}\{[13679, 13681, 13687, 13691, 13693, 13697, 13709, 13711, [13721_{1623\ thp}]^2, 13723, 13729, 13751, 13757, 13759, 13763, 13781, 13789]\}_{[6\ cnt]_{[13721]_{1623\ thp}}+8=[13729]} = [13729]^2$

$SUM_{17_{start_{1624\ thp}}}\{[13723, 13729, 13751, 13757, 13759, 13763, 13781, 13789, [13799_{1632\ thp}]^2, 13807, 13829, 13831, 13841, 13859, 13873, 13877, 13879]\}_{[7\ cnt]_{[13799]_{1632\ thp}}+8=[13807]} = [13807]^2$

$SUM_{17_{start_{1910\ thp}}}\{[16481, 16487, 16493, 16519, 16529, 16547, 16553, 16561, [16567_{1918\ thp}]^2, 16573, 16603, 16607, 16619, 16631, 16633, 16649, 16651]\}_{[8\ cnt]_{[16567]_{1918\ thp}}+8=[16575]} = [16575]^2$

$SUM_{21_{start_{113\ thp}}}\{[617, 619, 631, 641, 643, 647, 653, 659, 661, 673, [677_{123\ thp}]^2, 683, 691, 701, 709, 719, 727, 733, 739, 743, 751]\}_{[cnt]_{[677]_{123\ thp}}+10=[687]} = [687]^2$

$SUM_{21_{start_{170\ thp}}}\{[1013, 1019, 1021, 1031, 1033, 1039, 1049, 1051, 1061, 1063, [1069_{180\ thp}]^2, 1087, 1091, 1093, 1097, 1103, 1109, 1117, 1123, 1129, 1151]\}$

$$= [1079]^2$$
$$_{[2\,cnt]}[1069]_{180\,thp} + 10 = [1079]$$

$$SUM_{21_{start_{913\,thp}}} \{[7127, 7129, 7151, 7159, 7177, 7187, 7193, 7207, 7211, 7213, [7219_{923\,thp}]^2, 7229, 7237, 7243, 7247, 7253, 7283, 7297, 7307, 7309, 7321]\}$$
$$= [7229]^2$$
$$_{[3\,cnt]}[7219]_{923\,thp} + 10 = [7229]$$

$$SUM_{21_{start_{1077\,thp}}} \{[8647, 8663, 8669, 8677, 8681, 8689, 8693, 8699, 8707, 8713, [8719_{1087\,thp}]^2, 8731, 8737, 8741, 8747, 8753, 8761, 8779, 8783, 8803, 8807]\}$$
$$= [8729]^2$$
$$_{[4\,cnt]}[8719]_{1087\,thp} + 10 = [8729]$$

$$SUM_{21_{start_{1661\,thp}}} \{[14083, 14087, 14107, 14143, 14149, 14153, 14159, 14173, 14177, 14197, [14207_{1671\,thp}]^2, 14221, 14243, 14249, 14251, 14281, 14293, 14303, 14321, 14323, 14327]\}_{[5\,cnt]}[14207]_{1671\,thp} + 10 = [14217] = [14217]^2$$

$$SUM_{21_{start_{1740\,thp}}} \{[14851, 14867, 14869, 14879, 14887, 14891, 14897, 14923, 14929, 14939, [14947_{1750\,thp}]^2, 14951, 14957, 14969, 14983, 15013, 15017, 15031, 15053, 15061, 15073]\}_{[6\,cnt]}[14947]_{1750\,thp} + 10 = [14957] = [14957]^2$$

$$SUM_{21_{start_{1970\,thp}}} \{[17093, 17099, 17107, 17117, 17123, 17137, 17159, 17167, 17183, 17189, [17191_{1980\,thp}]^2, 17203, 17207, 17209, 17231, 17239, 17257, 17291, 17293, 17299, 17317]\}_{[7\,cnt]}[17191]_{1980\,thp} + 10 = [17201] = [17201]^2$$

$$SUM_{21_{start_{2012\,thp}}} \{[17489, 17491, 17497, 17509, 17519, 17539, 17551, 17569, 17573, 17579, [17581_{2022\,thp}]^2, 17597, 17599, 17609, 17623, 17627, 17657, 17659, 17669, 17681, 17683]\}_{[8\,cnt]}[17581]_{2022\,thp} + 10 = [17591] = [17591]^2$$

$$SUM_{25_{start_{228\,thp}}} \{[1439, 1447, 1451, 1453, 1459, 1471, 1481, 1483, 1487, 1489, 1493,$$

$1499, \left[1511_{240\,thp}\right]^2, 1523, 1531, 1543, 1549, 1553, 1559, 1567, 1571, 1579, 1583, 1597, 1601\big]\big\}_{[cnt]_{[1511]_{240\,thp}+12=[1523]}} = [1523]^2$

$SUM_{25_{start_{332\,thp}}}\big\{\big[2237, 2239, 2243, 2251, 2267, 2269, 2273, 2281, 2287, 2293, 2297, 2309, \left[2311_{344\,thp}\right]^2, 2333, 2339, 2341, 2347, 2351, 2357, 2371, 2377, 2381, 2383, 2389, 2393\big]\big\}_{[2\,cnt]_{[2311]_{344\,thp}+12=[2323]}} = [2323]^2$

$SUM_{25_{start_{509\,thp}}}\big\{\big[3637, 3643, 3659, 3671, 3673, 3677, 3691, 3697, 3701, 3709, 3719, 3727, \left[3733_{521\,thp}\right]^2, 3739, 3761, 3767, 3769, 3779, 3793, 3797, 3803, 3821, 3823, 3833, 3847\big]\big\}_{[3\,cnt]_{[3733]_{521\,thp}+12=[3745]}} = [3745]^2$

$SUM_{25_{start_{713\,thp}}}\big\{\big[5407, 5413, 5417, 5419, 5431, 5437, 5441, 5443, 5449, 5471, 5477, 5479, \left[5483_{725\,thp}\right]^2, 5501, 5503, 5507, 5519, 5521, 5527, 5531, 5557, 5563, 5569, 5573, 5581\big]\big\}_{[4\,cnt]_{[5483]_{725\,thp}+12=[5495]}} = [5495]^2$

$SUM_{25_{start_{1420\,thp}}}\big\{\big[11833, 11839, 11863, 11867, 11887, 11897, 11903, 11909, 11923, 11927, 11933, 11939, \left[11941_{1432\,thp}\right]^2, 11953, 11959, 11969, 11971, 11981, 11987, 12007, 12011, 12037, 12041, 12043, 12049\big]\big\}_{[5\,cnt]_{[11941]_{1432\,thp}+12=[11953]}} = [11953]^2$

$SUM_{25_{start_{1655\,thp}}}\big\{\big[14029, 14033, 14051, 14057, 14071, 14081, 14083, 14087, 14107, 14143, 14149, 14153, \left[14159_{1667\,thp}\right]^2, 14173, 14177, 14197, 14207, 14221, 14243, 14249, 14251, 14281, 14293, 14303, 14321\big]\big\}_{[6\,cnt]_{[14159]_{1667\,thp}+12=[14171]}} = [14171]^2$

$SUM_{25_{start_{2440\,thp}}}\big\{\big[21751, 21757, 21767, 21773, 21787, 21799, 21803, 21817, 21821, 21839, 21841, 21851, \left[21859_{2452\,thp}\right]^2, 21863, 21871, 21881, 21893, 21911, 21929, 21937, 21943, 21961, 21977, 21991, 21997\big]\big\}_{[7\,cnt]_{[21859]_{2452\,thp}+12=[21871]}} = [21871]^2$

$SUM_{25_{start_{3106\ thp}}}$ $\{[28549, 28559, 28571, 28573, 28579, 28591, 28597, 28603, 28607, 28619, 28621, 28627, [28631_{3118\ thp}]^2, 28643, 28649, 28657, 28661, 28663, 28669, 28687, 28697, 28703, 28711, 28723, 28729]\}_{[8\ cnt]_{[28631]_{3118\ thp}}+12=[28643]} = [28643]^2$

$SUM_{29_{start_{15\ thp}}}$ $\{[47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, [109_{29\ thp}]^2, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 191]\}_{[cnt]_{[109]_{29\ thp}}+14=[123]} = [123]^2$

$SUM_{29_{start_{166\ thp}}}$ $\{[983, 991, 997, 1009, 1013, 1019, 1021, 1031, 1033, 1039, 1049, 1051, 1061, 1063, [1069_{180\ thp}]^2, 1087, 1091, 1093, 1097, 1103, 1109, 1117, 1123, 1129, 1151, 1153, 1163, 1171, 1181]\}_{[2\ cnt]_{[1069]_{180\ thp}}+14=[1083]} = [1083]^2$

$SUM_{29_{start_{387\ thp}}}$ $\{[2671, 2677, 2683, 2687, 2689, 2693, 2699, 2707, 2711, 2713, 2719, 2729, 2731, 2741, [2749_{401\ thp}]^2, 2753, 2767, 2777, 2789, 2791, 2797, 2801, 2803, 2819, 2833, 2837, 2843, 2851, 2857]\}_{[3\ cnt]_{[2749]_{401\ thp}}+14=[2763]} = [2763]^2$

$SUM_{29_{start_{1321\ thp}}}$ $\{[10861, 10867, 10883, 10889, 10891, 10903, 10909, 10937, 10939, 10949, 10957, 10973, 10979, 10987, [10993_{1335\ thp}]^2, 11003, 11027, 11047, 11057, 11059, 11069, 11071, 11083, 11087, 11093, 11113, 11117, 11119, 11131]\}_{[4\ cnt]_{[10993]_{1335\ thp}}+14=[11007]} = [11007]^2$

$SUM_{29_{start_{1776\ thp}}}$ $\{[15217, 15227, 15233, 15241, 15259, 15263, 15269, 15271, 15277, 15287, 15289, 15299, 15307, 15313, [15319_{1790\ thp}]^2, 15329, 15331, 15349, 15359, 15361, 15373, 15377, 15383, 15391, 15401, 15413, 15427, 15439, 15443]\}_{[5\ cnt]_{[15319]_{1790\ thp}}+14=[15333]} = [15333]^2$

$SUM_{29_{start_{2531\ thp}}}$ $\{[22651, 22669, 22679, 22691, 22697, 22699, 22709, 22717, 22721, 22727, 22739, 22741, 22751, 22769, [22777_{2545\ thp}]^2, 22783, 22787, 22807, 22811,$

22817, 22853, 22859, 22861, 22871, 22877, 22901, 22907, 22921, 22937]}

$$ {}_{[6\,cnt]}{}_{[22777]_{2545\,thp}} + 14 = [22791] = [22791]^2 $$

$SUM_{29_{start_{2645\,thp}}}$ {[23773, 23789, 23801, 23813, 23819, 23827, 23831, 23833, 23857, 23869, 23873, 23879, 23887, 23893, $[23899_{2659\,thp}]^2$, 23909, 23911, 23917, 23929, 23957, 23971, 23977, 23981, 23993, 24001, 24007, 24019, 24023, 24029]}

$$ {}_{[7\,cnt]}{}_{[23899]_{2659\,thp}} + 14 = [23913] = [23913]^2 $$

$SUM_{29_{start_{2848\,thp}}}$ {[25889, 25903, 25913, 25919, 25931, 25933, 25939, 25943, 25951, 25969, 25981, 25997, 25999, 26003, $[26017_{2862\,thp}]^2$, 26021, 26029, 26041, 26053, 26083, 26099, 26107, 26111, 26113, 26119, 26141, 26153, 26161, 26171]}

$$ {}_{[8\,cnt]}{}_{[26017]_{2862\,thp}} + 14 = [26031] = [26031]^2 $$

$SUM_{33_{start_{168\,thp}}}$ {[997, 1009, 1013, 1019, 1021, 1031, 1033, 1039, 1049, 1051, 1061, 1063, 1069, 1087, 1091, 1093, $[1097_{184\,thp}]^2$, 1103, 1109, 1117, 1123, 1129, 1151, 1153, 1163, 1171, 1181, 1187, 1193, 1201, 1213, 1217, 1223]}$_{[cnt]_{[1097]_{184\,thp}}} + 16 = [1113]$

$= [1113]^2$

$SUM_{33_{start_{345\,thp}}}$ {[2333, 2339, 2341, 2347, 2351, 2357, 2371, 2377, 2381, 2383, 2389, 2393, 2399, 2411, 2417, 2423, $[2437_{361\,thp}]^2$, 2441, 2447, 2459, 2467, 2473, 2477, 2503, 2521, 2531, 2539, 2543, 2549, 2551, 2557, 2579, 2591]}

$$ {}_{[2\,cnt]}{}_{[2437]_{361\,thp}} + 16 = [2453] = [2453]^2 $$

$SUM_{33_{start_{425\,thp}}}$ {[2953, 2957, 2963, 2969, 2971, 2999, 3001, 3011, 3019, 3023, 3037, 3041, 3049, 3061, 3067, 3079, $[3083_{441\,thp}]^2$, 3089, 3109, 3119, 3121, 3137, 3163, 3167, 3169, 3181, 3187, 3191, 3203, 3209, 3217, 3221, 3229]}

$$ {}_{[3\,cnt]}{}_{[3083]_{441\,thp}} + 16 = [3099] = [3099]^2 $$

$$SUM_{33_{start_{456\,thp}}}\left\{\left[3221, 3229, 3251, 3253, 3257, 3259, 3271, 3299, 3301, 3307, 3313, 3319, 3323, 3329, 3331, 3343, \left[3347_{472\,thp}\right]^2, 3359, 3361, 3371, 3373, 3389, 3391, 3407, 3413, 3433, 3449, 3457, 3461, 3463, 3467, 3469, 3491\right]\right\}_{[4\,cnt]_{[3347]_{472\,thp}}+16=[3363]} = [3363]^2$$

$$SUM_{33_{start_{1270\,thp}}}\left\{\left[10343, 10357, 10369, 10391, 10399, 10427, 10429, 10433, 10453, 10457, 10459, 10463, 10477, 10487, 10499, 10501, \left[10513_{1286\,thp}\right]^2, 10529, 10531, 10559, 10567, 10589, 10597, 10601, 10607, 10613, 10627, 10631, 10639, 10651, 10657, 10663, 10667\right]\right\}_{[5\,cnt]_{[10513]_{1286\,thp}}+16=[10529]} = [10529]^2$$

$$SUM_{33_{start_{1440\,thp}}}\left\{\left[12011, 12037, 12041, 12043, 12049, 12071, 12073, 12097, 12101, 12107, 12109, 12113, 12119, 12143, 12149, 12157, \left[12161_{1456\,thp}\right]^2, 12163, 12197, 12203, 12211, 12227, 12239, 12241, 12251, 12253, 12263, 12269, 12277, 12281, 12289, 12301, 12323\right]\right\}_{[6\,cnt]_{[12161]_{1456\,thp}}+16=[12177]} = [12177]^2$$

$$SUM_{33_{start_{1722\,thp}}}\left\{\left[14717, 14723, 14731, 14737, 14741, 14747, 14753, 14759, 14767, 14771, 14779, 14783, 14797, 14813, 14821, 14827, \left[14831_{1738\,thp}\right]^2, 14843, 14851, 14867, 14869, 14879, 14887, 14891, 14897, 14923, 14929, 14939, 14947, 14951, 14957, 14969, 14983\right]\right\}_{[7\,cnt]_{[14831]_{1738\,thp}}+16=[14847]} = [14847]^2$$

$$SUM_{33_{start_{1827\,thp}}}\left\{\left[15661, 15667, 15671, 15679, 15683, 15727, 15731, 15733, 15737, 15739, 15749, 15761, 15767, 15773, 15787, 15791, \left[15797_{1843\,thp}\right]^2, 15803, 15809, 15817, 15823, 15859, 15877, 15881, 15887, 15889, 15901, 15907, 15913, 15919, 15923, 15937, 15959\right]\right\}_{[8\,cnt]_{[15797]_{1843\,thp}}+16=[15813]} = [15813]^2$$

(4)

\>

\> $c := 0$: **for** he **from** 1 **to** 8 **do** $c := 0$: **for** h **from** 0 **to** 10000 **do** $S := 0$:**for** e **from** 1 **to** $4 \cdot he + 1$ **do** $S := S + ithprime(h+e)$:**od**: $S := S - ithprime(h + 2\cdot he) + ithprime(h + 2\cdot he)^2$:**if** $\operatorname{floor}\left(evalf\left(S^{\frac{1}{2}}\right)\right)^2 = S$ **then** $c := c + 1$: **if** $c < 9$ **then** $print\Big(SUM[4\cdot he$

$+1][start[(h+1)thp]]\{[seq(ithprime(h+j), j=1..2\cdot he-1), [ithprime(h+2\cdot he)[(h+2\cdot he)\ thp]]^2, seq(ithprime(h+j), j=(2\cdot he+1)..(4\cdot he+1))]\}[[cnt\,c][[ithprime(h+2\cdot he)][(h+2\cdot he)\ thp]+2\cdot he=[ithprime(h+2\cdot he)+2\cdot he]]]=\left[simplify\left(S^{\frac{1}{2}}\right)\right]^2\Big)$: $print(\ )$ **fi**:**fi** :**od**:**od**:

$SUM_{5_{start_{217\ thp}}}\{[1327, [1361_{218\ thp}]^2, 1367, 1373, 1381]\}_{[cnt]_{[1361]_{218\ thp}}+2=[1363]} = [1363]^2$

$SUM_{5_{start_{312\ thp}}}\{[2069, [2081_{313\ thp}]^2, 2083, 2087, 2089]\}_{[2\ cnt]_{[2081]_{313\ thp}}+2=[2083]} = [2083]^2$

$SUM_{5_{start_{566\ thp}}}\{[4111, [4127_{567\ thp}]^2, 4129, 4133, 4139]\}_{[3\ cnt]_{[4127]_{567\ thp}}+2=[4129]} = [4129]^2$

$SUM_{5_{start_{624\ thp}}}\{[4621, [4637_{625\ thp}]^2, 4639, 4643, 4649]\}_{[4\ cnt]_{[4637]_{625\ thp}}+2=[4639]} = [4639]^2$

$SUM_{5_{start_{635\ thp}}}\{[4703, [4721_{636\ thp}]^2, 4723, 4729, 4733]\}_{[5\ cnt]_{[4721]_{636\ thp}}+2=[4723]} = [4723]^2$

$SUM_{5_{start_{721\ thp}}}\{[5449, [5471_{722\ thp}]^2, 5477, 5479, 5483]\}_{[6\ cnt]_{[5471]_{722\ thp}}+2=[5473]} = [5473]^2$

$SUM_{5_{start_{1108\ thp}}}\{[8893, [8923_{1109\ thp}]^2, 8929, 8933, 8941]\}_{[7\ cnt]_{[8923]_{1109\ thp}}+2=[8925]} = [8925]^2$

$SUM_{5_{start_{1625\ thp}}}\{[13729, [13751_{1626\ thp}]^2, 13757, 13759, 13763]\}_{[8\ cnt]_{[13751]_{1626\ thp}}+2=[13753]} = [13753]^2$

$$SUM_{9_{start_{166\,thp}}}\left\{\left[983, 991, 997, \left[1009_{169\,thp}\right]^2, 1013, 1019, 1021, 1031, 1033\right]\right\}_{[cnt]_{[1009]_{169\,thp}}+4=[1013]} = [1013]^2$$

$$SUM_{9_{start_{187\,thp}}}\left\{\left[1117, 1123, 1129, \left[1151_{190\,thp}\right]^2, 1153, 1163, 1171, 1181, 1187\right]\right\}_{[2\,cnt]_{[1151]_{190\,thp}}+4=[1155]} = [1155]^2$$

$$SUM_{9_{start_{445\,thp}}}\left\{\left[3121, 3137, 3163, \left[3167_{448\,thp}\right]^2, 3169, 3181, 3187, 3191, 3203\right]\right\}_{[3\,cnt]_{[3167]_{448\,thp}}+4=[3171]} = [3171]^2$$

$$SUM_{9_{start_{487\,thp}}}\left\{\left[3469, 3491, 3499, \left[3511_{490\,thp}\right]^2, 3517, 3527, 3529, 3533, 3539\right]\right\}_{[4\,cnt]_{[3511]_{490\,thp}}+4=[3515]} = [3515]^2$$

$$SUM_{9_{start_{520\,thp}}}\left\{\left[3727, 3733, 3739, \left[3761_{523\,thp}\right]^2, 3767, 3769, 3779, 3793, 3797\right]\right\}_{[5\,cnt]_{[3761]_{523\,thp}}+4=[3765]} = [3765]^2$$

$$SUM_{9_{start_{539\,thp}}}\left\{\left[3889, 3907, 3911, \left[3917_{542\,thp}\right]^2, 3919, 3923, 3929, 3931, 3943\right]\right\}_{[6\,cnt]_{[3917]_{542\,thp}}+4=[3921]} = [3921]^2$$

$$SUM_{9_{start_{574\,thp}}}\left\{\left[4177, 4201, 4211, \left[4217_{577\,thp}\right]^2, 4219, 4229, 4231, 4241, 4243\right]\right\}_{[7\,cnt]_{[4217]_{577\,thp}}+4=[4221]} = [4221]^2$$

$$SUM_{9_{start_{696\,thp}}}\left\{\left[5233, 5237, 5261, \left[5273_{699\,thp}\right]^2, 5279, 5281, 5297, 5303, 5309\right]\right\}_{[8\,cnt]_{[5273]_{699\,thp}}+4=[5277]} = [5277]^2$$

$$SUM_{13_{start_{12\,thp}}}\left\{\left[37, 41, 43, 47, 53, \left[59_{17\,thp}\right]^2, 61, 67, 71, 73, 79, 83,\right.\right.$$

$89]\}_{[cnt]_{[59]_{17\,thp}+6=[65]}} = [65]^2$

$SUM_{13_{start_{21\,thp}}} \{[73, 79, 83, 89, 97, [101_{26\,thp}]^2, 103, 107, 109, 113, 127, 131, 137]\}_{[2\,cnt]_{[101]_{26\,thp}+6=[107]}} = [107]^2$

$SUM_{13_{start_{26\,thp}}} \{[101, 103, 107, 109, 113, [127_{31\,thp}]^2, 131, 137, 139, 149, 151, 157, 163]\}_{[3\,cnt]_{[127]_{31\,thp}+6=[133]}} = [133]^2$

$SUM_{13_{start_{525\,thp}}} \{[3769, 3779, 3793, 3797, 3803, [3821_{530\,thp}]^2, 3823, 3833, 3847, 3851, 3853, 3863, 3877]\}_{[4\,cnt]_{[3821]_{530\,thp}+6=[3827]}} = [3827]^2$

$SUM_{13_{start_{574\,thp}}} \{[4177, 4201, 4211, 4217, 4219, [4229_{579\,thp}]^2, 4231, 4241, 4243, 4253, 4259, 4261, 4271]\}_{[5\,cnt]_{[4229]_{579\,thp}+6=[4235]}} = [4235]^2$

$SUM_{13_{start_{707\,thp}}} \{[5347, 5351, 5381, 5387, 5393, [5399_{712\,thp}]^2, 5407, 5413, 5417, 5419, 5431, 5437, 5441]\}_{[6\,cnt]_{[5399]_{712\,thp}+6=[5405]}} = [5405]^2$

$SUM_{13_{start_{964\,thp}}} \{[7589, 7591, 7603, 7607, 7621, [7639_{969\,thp}]^2, 7643, 7649, 7669, 7673, 7681, 7687, 7691]\}_{[7\,cnt]_{[7639]_{969\,thp}+6=[7645]}} = [7645]^2$

$SUM_{13_{start_{1068\,thp}}} \{[8573, 8581, 8597, 8599, 8609, [8623_{1073\,thp}]^2, 8627, 8629, 8641, 8647, 8663, 8669, 8677]\}_{[8\,cnt]_{[8623]_{1073\,thp}+6=[8629]}} = [8629]^2$

$SUM_{17_{start_{261\,thp}}} \{[1663, 1667, 1669, 1693, 1697, 1699, 1709, [1721_{268\,thp}]^2, 1723, 1733, 1741, 1747, 1753, 1759, 1777, 1783, 1787]\}_{[cnt]_{[1721]_{268\,thp}+8=[1729]}} = [1729]^2$

$$SUM_{17_{start_{372\,thp}}}\left\{\left[2543, 2549, 2551, 2557, 2579, 2591, 2593, \left[2609_{379\,thp}\right]^2, 2617, 2621, 2633, 2647, 2657, 2659, 2663, 2671, 2677\right]\right\}_{[2\,cnt]_{[2609]_{379\,thp}}+8=[2617]} = [2617]^2$$

$$SUM_{17_{start_{404\,thp}}}\left\{\left[2777, 2789, 2791, 2797, 2801, 2803, 2819, \left[2833_{411\,thp}\right]^2, 2837, 2843, 2851, 2857, 2861, 2879, 2887, 2897, 2903\right]\right\}_{[3\,cnt]_{[2833]_{411\,thp}}+8=[2841]} = [2841]^2$$

$$SUM_{17_{start_{657\,thp}}}\left\{\left[4919, 4931, 4933, 4937, 4943, 4951, 4957, \left[4967_{664\,thp}\right]^2, 4969, 4973, 4987, 4993, 4999, 5003, 5009, 5011, 5021\right]\right\}_{[4\,cnt]_{[4967]_{664\,thp}}+8=[4975]} = [4975]^2$$

$$SUM_{17_{start_{1039\,thp}}}\left\{\left[8287, 8291, 8293, 8297, 8311, 8317, 8329, \left[8353_{1046\,thp}\right]^2, 8363, 8369, 8377, 8387, 8389, 8419, 8423, 8429, 8431\right]\right\}_{[5\,cnt]_{[8353]_{1046\,thp}}+8=[8361]} = [8361]^2$$

$$SUM_{17_{start_{1282\,thp}}}\left\{\left[10477, 10487, 10499, 10501, 10513, 10529, 10531, \left[10559_{1289\,thp}\right]^2, 10567, 10589, 10597, 10601, 10607, 10613, 10627, 10631, 10639\right]\right\}_{[6\,cnt]_{[10559]_{1289\,thp}}+8=[10567]} = [10567]^2$$

$$SUM_{17_{start_{1796\,thp}}}\left\{\left[15373, 15377, 15383, 15391, 15401, 15413, 15427, \left[15439_{1803\,thp}\right]^2, 15443, 15451, 15461, 15467, 15473, 15493, 15497, 15511, 15527\right]\right\}_{[7\,cnt]_{[15439]_{1803\,thp}}+8=[15447]} = [15447]^2$$

$$SUM_{17_{start_{1896\,thp}}}\left\{\left[16349, 16361, 16363, 16369, 16381, 16411, 16417, \left[16421_{1903\,thp}\right]^2, 16427, 16433, 16447, 16451, 16453, 16477, 16481, 16487, 16493\right]\right\}_{[8\,cnt]_{[16421]_{1903\,thp}}+8=[16429]} = [16429]^2$$

$$SUM_{21_{start_{11\,thp}}}\left\{\left[31, 37, 41, 43, 47, 53, 59, 61, 67, \left[71_{20\,thp}\right]^2, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127\right]\right\}_{[cnt]_{[71]_{20\,thp}}+10=[81]} = [81]^2$$

$SUM_{21_{start_{28\ thp}}}\{[107, 109, 113, 127, 131, 137, 139, 149, 151, [157_{37\ thp}]^2, 163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223]\}_{[2\ cnt]_{[157]_{37\ thp}}+10=[167]} = [167]^2$

$SUM_{21_{start_{368\ thp}}}\{[2503, 2521, 2531, 2539, 2543, 2549, 2551, 2557, 2579, [2591_{377\ thp}]^2, 2593, 2609, 2617, 2621, 2633, 2647, 2657, 2659, 2663, 2671, 2677]\}_{[3\ cnt]_{[2591]_{377\ thp}}+10=[2601]} = [2601]^2$

$SUM_{21_{start_{571\ thp}}}\{[4153, 4157, 4159, 4177, 4201, 4211, 4217, 4219, 4229, [4231_{580\ thp}]^2, 4241, 4243, 4253, 4259, 4261, 4271, 4273, 4283, 4289, 4297, 4327]\}_{[4\ cnt]_{[4231]_{580\ thp}}+10=[4241]} = [4241]^2$

$SUM_{21_{start_{798\ thp}}}\{[6121, 6131, 6133, 6143, 6151, 6163, 6173, 6197, 6199, [6203_{807\ thp}]^2, 6211, 6217, 6221, 6229, 6247, 6257, 6263, 6269, 6271, 6277, 6287]\}_{[5\ cnt]_{[6203]_{807\ thp}}+10=[6213]} = [6213]^2$

$SUM_{21_{start_{1140\ thp}}}\{[9199, 9203, 9209, 9221, 9227, 9239, 9241, 9257, 9277, [9281_{1149\ thp}]^2, 9283, 9293, 9311, 9319, 9323, 9337, 9341, 9343, 9349, 9371, 9377]\}_{[6\ cnt]_{[9281]_{1149\ thp}}+10=[9291]} = [9291]^2$

$SUM_{21_{start_{1337\ thp}}}\{[11027, 11047, 11057, 11059, 11069, 11071, 11083, 11087, 11093, [11113_{1346\ thp}]^2, 11117, 11119, 11131, 11149, 11159, 11161, 11171, 11173, 11177, 11197, 11213]\}_{[7\ cnt]_{[11113]_{1346\ thp}}+10=[11123]} = [11123]^2$

$SUM_{21_{start_{1391\ thp}}}\{[11549, 11551, 11579, 11587, 11593, 11597, 11617, 11621, 11633, [11657_{1400\ thp}]^2, 11677, 11681, 11689, 11699, 11701, 11717, 11719, 11731, 11743, 11777, 11779]\}_{[8\ cnt]_{[11657]_{1400\ thp}}+10=[11667]} = [11667]^2$

$SUM_{25_{start_{41\,thp}}}\{[179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, [239_{52\,thp}]^2, 241, 251, 257, 263, 269, 271, 277, 281, 283, 293, 307, 311, 313]\}_{[cnt]_{[239]_{52\,thp}}+12=[251]}$

$=[251]^2$

$SUM_{25_{start_{99\,thp}}}\{[523, 541, 547, 557, 563, 569, 571, 577, 587, 593, 599, [601_{110\,thp}]^2, 607, 613, 617, 619, 631, 641, 643, 647, 653, 659, 661, 673, 677]\}_{[2\,cnt]_{[601]_{110\,thp}}+12=[613]}$

$=[613]^2$

$SUM_{25_{start_{155\,thp}}}\{[907, 911, 919, 929, 937, 941, 947, 953, 967, 971, 977, [983_{166\,thp}]^2, 991, 997, 1009, 1013, 1019, 1021, 1031, 1033, 1039, 1049, 1051, 1061, 1063]\}_{[3\,cnt]_{[983]_{166\,thp}}+12=[995]} = [995]^2$

$SUM_{25_{start_{210\,thp}}}\{[1291, 1297, 1301, 1303, 1307, 1319, 1321, 1327, 1361, 1367, 1373, [1381_{221\,thp}]^2, 1399, 1409, 1423, 1427, 1429, 1433, 1439, 1447, 1451, 1453, 1459, 1471, 1481]\}_{[4\,cnt]_{[1381]_{221\,thp}}+12=[1393]} = [1393]^2$

$SUM_{25_{start_{543\,thp}}}\{[3919, 3923, 3929, 3931, 3943, 3947, 3967, 3989, 4001, 4003, 4007, [4013_{554\,thp}]^2, 4019, 4021, 4027, 4049, 4051, 4057, 4073, 4079, 4091, 4093, 4099, 4111, 4127]\}_{[5\,cnt]_{[4013]_{554\,thp}}+12=[4025]} = [4025]^2$

$SUM_{25_{start_{779\,thp}}}\{[5927, 5939, 5953, 5981, 5987, 6007, 6011, 6029, 6037, 6043, 6047, [6053_{790\,thp}]^2, 6067, 6073, 6079, 6089, 6091, 6101, 6113, 6121, 6131, 6133, 6143, 6151, 6163]\}_{[6\,cnt]_{[6053]_{790\,thp}}+12=[6065]} = [6065]^2$

$SUM_{25_{start_{1017\,thp}}}\{[8089, 8093, 8101, 8111, 8117, 8123, 8147, 8161, 8167, 8171, 8179, [8191_{1028\,thp}]^2, 8209, 8219, 8221, 8231, 8233, 8237, 8243, 8263, 8269, 8273, 8287, 8291, 8293]\}_{[7\,cnt]_{[8191]_{1028\,thp}}+12=[8203]} = [8203]^2$

$$SUM_{25_{start_{1101\ thp}}} \left\{\left[8837, 8839, 8849, 8861, 8863, 8867, 8887, 8893, 8923, 8929, 8933, \left[8941_{1112\ thp}\right]^2, 8951, 8963, 8969, 8971, 8999, 9001, 9007, 9011, 9013, 9029, 9041, 9043, 9049\right]\right\}_{[8\ cnt]_{[8941]_{1112\ thp}} + 12 = [8953]} = [8953]^2$$

$$SUM_{29_{start_{64\ thp}}} \left\{\left[311, 313, 317, 331, 337, 347, 349, 353, 359, 367, 373, 379, 383, \left[389_{77\ thp}\right]^2, 397, 401, 409, 419, 421, 431, 433, 439, 443, 449, 457, 461, 463, 467, 479\right]\right\}_{[cnt]_{[389]_{77\ thp}} + 14 = [403]} = [403]^2$$

$$SUM_{29_{start_{144\ thp}}} \left\{\left[827, 829, 839, 853, 857, 859, 863, 877, 881, 883, 887, 907, 911, \left[919_{157\ thp}\right]^2, 929, 937, 941, 947, 953, 967, 971, 977, 983, 991, 997, 1009, 1013, 1019, 1021\right]\right\}_{[2\ cnt]_{[919]_{157\ thp}} + 14 = [933]} = [933]^2$$

$$SUM_{29_{start_{589\ thp}}} \left\{\left[4289, 4297, 4327, 4337, 4339, 4349, 4357, 4363, 4373, 4391, 4397, 4409, 4421, \left[4423_{602\ thp}\right]^2, 4441, 4447, 4451, 4457, 4463, 4481, 4483, 4493, 4507, 4513, 4517, 4519, 4523, 4547, 4549\right]\right\}_{[3\ cnt]_{[4423]_{602\ thp}} + 14 = [4437]} = [4437]^2$$

$$SUM_{29_{start_{1125\ thp}}} \left\{\left[9049, 9059, 9067, 9091, 9103, 9109, 9127, 9133, 9137, 9151, 9157, 9161, 9173, \left[9181_{1138\ thp}\right]^2, 9187, 9199, 9203, 9209, 9221, 9227, 9239, 9241, 9257, 9277, 9281, 9283, 9293, 9311, 9319\right]\right\}_{[4\ cnt]_{[9181]_{1138\ thp}} + 14 = [9195]} = [9195]^2$$

$$SUM_{29_{start_{1558\ thp}}} \left\{\left[13099, 13103, 13109, 13121, 13127, 13147, 13151, 13159, 13163, 13171, 13177, 13183, 13187, \left[13217_{1571\ thp}\right]^2, 13219, 13229, 13241, 13249, 13259, 13267, 13291, 13297, 13309, 13313, 13327, 13331, 13337, 13339, 13367\right]\right\}_{[5\ cnt]_{[13217]_{1571\ thp}} + 14 = [13231]} = [13231]^2$$

$$SUM_{29_{start_{1573\ thp}}} \left\{\left[13229, 13241, 13249, 13259, 13267, 13291, 13297, 13309, 13313, 13327, 13331, 13337, 13339, \left[13367_{1586\ thp}\right]^2, 13381, 13397, 13399, 13411, 13417,\right.\right.$$

$13421, 13441, 13451, 13457, 13463, 13469, 13477, 13487, 13499, 13513 \big]\big\}$

$[6\ cnt]_{[13367]_{1586\ thp}} + 14 = [13381] = [13381]^2$

$SUM_{29_{start_{1904\ thp}}} \big\{\big[16427, 16433, 16447, 16451, 16453, 16477, 16481, 16487, 16493, 16519, 16529, 16547, 16553, [16561_{1917\ thp}]^2, 16567, 16573, 16603, 16607, 16619, 16631, 16633, 16649, 16651, 16657, 16661, 16673, 16691, 16693, 16699 \big]\big\}$

$[7\ cnt]_{[16561]_{1917\ thp}} + 14 = [16575] = [16575]^2$

$SUM_{29_{start_{1964\ thp}}} \big\{\big[17029, 17033, 17041, 17047, 17053, 17077, 17093, 17099, 17107, 17117, 17123, 17137, 17159, [17167_{1977\ thp}]^2, 17183, 17189, 17191, 17203, 17207, 17209, 17231, 17239, 17257, 17291, 17293, 17299, 17317, 17321, 17327 \big]\big\}$

$[8\ cnt]_{[17167]_{1977\ thp}} + 14 = [17181] = [17181]^2$

$SUM_{33_{start_{129\ thp}}} \big\{\big[727, 733, 739, 743, 751, 757, 761, 769, 773, 787, 797, 809, 811, 821, 823, [827_{144\ thp}]^2, 829, 839, 853, 857, 859, 863, 877, 881, 883, 887, 907, 911, 919, 929, 937, 941, 947 \big]\big\}_{[cnt]_{[827]_{144\ thp}} + 16 = [843]} = [843]^2$

$SUM_{33_{start_{524\ thp}}} \big\{\big[3767, 3769, 3779, 3793, 3797, 3803, 3821, 3823, 3833, 3847, 3851, 3853, 3863, 3877, 3881, [3889_{539\ thp}]^2, 3907, 3911, 3917, 3919, 3923, 3929, 3931, 3943, 3947, 3967, 3989, 4001, 4003, 4007, 4013, 4019, 4021 \big]\big\}$

$[2\ cnt]_{[3889]_{539\ thp}} + 16 = [3905] = [3905]^2$

$SUM_{33_{start_{685\ thp}}} \big\{\big[5119, 5147, 5153, 5167, 5171, 5179, 5189, 5197, 5209, 5227, 5231, 5233, 5237, 5261, 5273, [5279_{700\ thp}]^2, 5281, 5297, 5303, 5309, 5323, 5333, 5347, 5351, 5381, 5387, 5393, 5399, 5407, 5413, 5417, 5419, 5431 \big]\big\}$

$[3\ cnt]_{[5279]_{700\ thp}} + 16 = [5295] = [5295]^2$

$SUM_{33_{start_{691\ thp}}} \big\{\big[5189, 5197, 5209, 5227, 5231, 5233, 5237, 5261, 5273, 5279, 5281,$

$5297, 5303, 5309, 5323, \left[5333_{706\,thp}\right]^2, 5347, 5351, 5381, 5387, 5393, 5399, 5407, 5413, 5417, 5419, 5431, 5437, 5441, 5443, 5449, 5471, 5477\big]\big\}_{[4\,cnt]_{[5333]_{706\,thp}}+16=[5349]} = [5349]^2$

$SUM_{33_{start_{1283\,thp}}} \big\{\big[10487, 10499, 10501, 10513, 10529, 10531, 10559, 10567, 10589, 10597, 10601, 10607, 10613, 10627, 10631, \left[10639_{1298\,thp}\right]^2, 10651, 10657, 10663, 10667, 10687, 10691, 10709, 10711, 10723, 10729, 10733, 10739, 10753, 10771, 10781, 10789, 10799\big]\big\}_{[5\,cnt]_{[10639]_{1298\,thp}}+16=[10655]} = [10655]^2$

$SUM_{33_{start_{2026\,thp}}} \big\{\big[17623, 17627, 17657, 17659, 17669, 17681, 17683, 17707, 17713, 17729, 17737, 17747, 17749, 17761, 17783, \left[17789_{2041\,thp}\right]^2, 17791, 17807, 17827, 17837, 17839, 17851, 17863, 17881, 17891, 17903, 17909, 17911, 17921, 17923, 17929, 17939, 17957\big]\big\}_{[6\,cnt]_{[17789]_{2041\,thp}}+16=[17805]} = [17805]^2$

$SUM_{33_{start_{2379\,thp}}} \big\{\big[21163, 21169, 21179, 21187, 21191, 21193, 21211, 21221, 21227, 21247, 21269, 21277, 21283, 21313, 21317, \left[21319_{2394\,thp}\right]^2, 21323, 21341, 21347, 21377, 21379, 21383, 21391, 21397, 21401, 21407, 21419, 21433, 21467, 21481, 21487, 21491, 21493\big]\big\}_{[7\,cnt]_{[21319]_{2394\,thp}}+16=[21335]} = [21335]^2$

$SUM_{33_{start_{2555\,thp}}} \big\{\big[22877, 22901, 22907, 22921, 22937, 22943, 22961, 22963, 22973, 22993, 23003, 23011, 23017, 23021, 23027, \left[23029_{2570\,thp}\right]^2, 23039, 23041, 23053, 23057, 23059, 23063, 23071, 23081, 23087, 23099, 23117, 23131, 23143, 23159, 23167, 23173, 23189\big]\big\}_{[8\,cnt]_{[23029]_{2570\,thp}}+16=[23045]} = [23045]^2$

(5)

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\> $8573 + 8581 + 8597 + 8599 + 8609 + 8623^2 + 8627 + 8629 + 8641 + 8647 + 8663 + 8669 + 8677;\ 8629^2;$

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74459641 **(6)**

\> $c := 0$: **for** he **from** 1 **to** 8 **do** $c := 0$: **for** h **from** 0 **to** 13585 **do** $S := 0$:**for** e **from** 1 **to** $4 \cdot he + 1$ **do** $S := S + ithprime(h + e)$:**od**: $S := S - ithprime(h + 2 \cdot he + 2)$

$+ ithprime(h+2\cdot he+2)^2$:**if** floor$\left(evalf\left(S^{\frac{1}{2}}\right)\right)^2 = S$ **then** $c := c+1$: **if** $c < 9$ **then** $print\Big(SUM[4\cdot he+1][start[(h+1)thp]]\{[seq(ithprime(h+j), j=1..2\cdot he+1), [ithprime(h+2\cdot he+2)[(h+2\cdot he+2)\ thp]]^2, seq(ithprime(h+j), j=(2\cdot he+3)..(4\cdot he+1))]\}[[cnt\ c][[ithprime(h+2\cdot he+2)][(h+2\cdot he+2)\ thp]+2\cdot he = [ithprime(h+2\cdot he+2)+2\cdot he]]] = \left[simplify\left(S^{\frac{1}{2}}\right)\right]^2\Big)$: $print(\,)$ **fi**:**fi** :**od**:**od**:

$SUM_{5_{start_{260\ thp}}}\{[1657, 1663, 1667, [1669_{263\ thp}]^2, 1693]\}_{[cnt]_{[1669]_{263\ thp}}+2=[1671]} = [1671]^2$

$SUM_{5_{start_{426\ thp}}}\{[2957, 2963, 2969, [2971_{429\ thp}]^2, 2999]\}_{[2\ cnt]_{[2971]_{429\ thp}}+2=[2973]} = [2973]^2$

$SUM_{5_{start_{612\ thp}}}\{[4513, 4517, 4519, [4523_{615\ thp}]^2, 4547]\}_{[3\ cnt]_{[4523]_{615\ thp}}+2=[4525]} = [4525]^2$

$SUM_{5_{start_{694\ thp}}}\{[5227, 5231, 5233, [5237_{697\ thp}]^2, 5261]\}_{[4\ cnt]_{[5237]_{697\ thp}}+2=[5239]} = [5239]^2$

$SUM_{5_{start_{754\ thp}}}\{[5737, 5741, 5743, [5749_{757\ thp}]^2, 5779]\}_{[5\ cnt]_{[5749]_{757\ thp}}+2=[5751]} = [5751]^2$

$SUM_{5_{start_{982\ thp}}}\{[7741, 7753, 7757, [7759_{985\ thp}]^2, 7789]\}_{[6\ cnt]_{[7759]_{985\ thp}}+2=[7761]} = [7761]^2$

$SUM_{5_{start_{1880\ thp}}}\{[16183, 16187, 16189, [16193_{1883\ thp}]^2, 16217]\}_{[7\ cnt]_{[16193]_{1883\ thp}}+2=[16195]} = [16195]^2$

$SUM_{5_{start_{2143\ thp}}}\{[18787, 18793, 18797, [18803_{2146\ thp}]^2,$

$$18839]\}_{[8\,cnt]_{[18803]_{2146\,thp}}} + 2 = [18805] = [18805]^2$$

$$SUM_{9_{start_{thp}}}\{[2, 3, 5, 7, 11, [13_{6\,thp}]^2, 17, 19, 23]\}_{[cnt]_{[13]_{6\,thp}}} + 4 = [17] = [16]^2$$

$$SUM_{9_{start_{1101\,thp}}}\{[8837, 8839, 8849, 8861, 8863, [8867_{1106\,thp}]^2, 8887, 8893,$$
$$8923]\}_{[2\,cnt]_{[8867]_{1106\,thp}}} + 4 = [8871] = [8871]^2$$

$$SUM_{9_{start_{2782\,thp}}}\{[25219, 25229, 25237, 25243, 25247, [25253_{2787\,thp}]^2, 25261, 25301,$$
$$25303]\}_{[3\,cnt]_{[25253]_{2787\,thp}}} + 4 = [25257] = [25257]^2$$

$$SUM_{9_{start_{2867\,thp}}}\{[26083, 26099, 26107, 26111, 26113, [26119_{2872\,thp}]^2, 26141, 26153,$$
$$26161]\}_{[4\,cnt]_{[26119]_{2872\,thp}}} + 4 = [26123] = [26123]^2$$

$$SUM_{9_{start_{3035\,thp}}}\{[27799, 27803, 27809, 27817, 27823, [27827_{3040\,thp}]^2, 27847, 27851,$$
$$27883]\}_{[5\,cnt]_{[27827]_{3040\,thp}}} + 4 = [27831] = [27831]^2$$

$$SUM_{9_{start_{3222\,thp}}}\{[29717, 29723, 29741, 29753, 29759, [29761_{3227\,thp}]^2, 29789, 29803,$$
$$29819]\}_{[6\,cnt]_{[29761]_{3227\,thp}}} + 4 = [29765] = [29765]^2$$

$$SUM_{9_{start_{3309\,thp}}}\{[30677, 30689, 30697, 30703, 30707, [30713_{3314\,thp}]^2, 30727, 30757,$$
$$30763]\}_{[7\,cnt]_{[30713]_{3314\,thp}}} + 4 = [30717] = [30717]^2$$

$$SUM_{9_{start_{3471\,thp}}}\{[32359, 32363, 32369, 32371, 32377, [32381_{3476\,thp}]^2, 32401, 32411,$$
$$32413]\}_{[8\,cnt]_{[32381]_{3476\,thp}}} + 4 = [32385] = [32385]^2$$

$$SUM_{13_{start_{251\,thp}}}\{[1597, 1601, 1607, 1609, 1613, 1619, 1621, [1627_{258\,thp}]^2, 1637, 1657,$$

$1663, 1667, 1669\,]\}_{[cnt]_{[1627]_{258\,thp}+6=[1633]}} = [1633]^2$

$SUM_{13_{start_{999\,thp}}}\{[7907, 7919, 7927, 7933, 7937, 7949, 7951, [7963_{1006\,thp}]^2, 7993, 8009,$

$8011, 8017, 8039\,]\}_{[2\,cnt]_{[7963]_{1006\,thp}+6=[7969]}} = [7969]^2$

$SUM_{13_{start_{4042\,thp}}}\{[38299, 38303, 38317, 38321, 38327, 38329, 38333, [38351_{4049\,thp}]^2,$

$38371, 38377, 38393, 38431, 38447\,]\}_{[3\,cnt]_{[38351]_{4049\,thp}+6=[38357]}} = [38357]^2$

$SUM_{13_{start_{4050\,thp}}}\{[38371, 38377, 38393, 38431, 38447, 38449, 38453, [38459_{4057\,thp}]^2,$

$38461, 38501, 38543, 38557, 38561\,]\}_{[4\,cnt]_{[38459]_{4057\,thp}+6=[38465]}} = [38465]^2$

$SUM_{13_{start_{4126\,thp}}}\{[39191, 39199, 39209, 39217, 39227, 39229, 39233, [39239_{4133\,thp}]^2,$

$39241, 39251, 39293, 39301, 39313\,]\}_{[5\,cnt]_{[39239]_{4133\,thp}+6=[39245]}} = [39245]^2$

$SUM_{13_{start_{4355\,thp}}}\{[41627, 41641, 41647, 41651, 41659, 41669, 41681, [41687_{4362\,thp}]^2,$

$41719, 41729, 41737, 41759, 41761\,]\}_{[6\,cnt]_{[41687]_{4362\,thp}+6=[41693]}} = [41693]^2$

$SUM_{13_{start_{4389\,thp}}}\{[41969, 41981, 41983, 41999, 42013, 42017, 42019, [42023_{4396\,thp}]^2,$

$42043, 42061, 42071, 42073, 42083\,]\}_{[7\,cnt]_{[42023]_{4396\,thp}+6=[42029]}} = [42029]^2$

$SUM_{13_{start_{4680\,thp}}}\{[45077, 45083, 45119, 45121, 45127, 45131, 45137, [45139_{4687\,thp}]^2,$

$45161, 45179, 45181, 45191, 45197\,]\}_{[8\,cnt]_{[45139]_{4687\,thp}+6=[45145]}} = [45145]^2$

$SUM_{17_{start_{824\,thp}}}\{[6329, 6337, 6343, 6353, 6359, 6361, 6367, 6373, 6379, [6389_{833\,thp}]^2,$

$6397, 6421, 6427, 6449, 6451, 6469, 6473\,]\}_{[cnt]_{[6389]_{833\,thp}+8=[6397]}} = [6397]^2$

$$SUM_{17_{start_{1013\ thp}}}\{[8059, 8069, 8081, 8087, 8089, 8093, 8101, 8111, 8117, [8123_{1022\ thp}]^2, 8147, 8161, 8167, 8171, 8179, 8191, 8209]\}_{[2\ cnt]_{[8123]_{1022\ thp}}+8=[8131]} = [8131]^2$$

$$SUM_{17_{start_{2378\ thp}}}\{[21157, 21163, 21169, 21179, 21187, 21191, 21193, 21211, 21221, [21227_{2387\ thp}]^2, 21247, 21269, 21277, 21283, 21313, 21317, 21319]\}_{[3\ cnt]_{[21227]_{2387\ thp}}+8=[21235]} = [21235]^2$$

$$SUM_{17_{start_{2567\ thp}}}\{[23017, 23021, 23027, 23029, 23039, 23041, 23053, 23057, 23059, [23063_{2576\ thp}]^2, 23071, 23081, 23087, 23099, 23117, 23131, 23143]\}_{[4\ cnt]_{[23063]_{2576\ thp}}+8=[23071]} = [23071]^2$$

$$SUM_{17_{start_{2689\ thp}}}\{[24151, 24169, 24179, 24181, 24197, 24203, 24223, 24229, 24239, [24247_{2698\ thp}]^2, 24251, 24281, 24317, 24329, 24337, 24359, 24371]\}_{[5\ cnt]_{[24247]_{2698\ thp}}+8=[24255]} = [24255]^2$$

$$SUM_{17_{start_{2925\ thp}}}\{[26683, 26687, 26693, 26699, 26701, 26711, 26713, 26717, 26723, [26729_{2934\ thp}]^2, 26731, 26737, 26759, 26777, 26783, 26801, 26813]\}_{[6\ cnt]_{[26729]_{2934\ thp}}+8=[26737]} = [26737]^2$$

$$SUM_{17_{start_{3550\ thp}}}\{[33113, 33119, 33149, 33151, 33161, 33179, 33181, 33191, 33199, [33203_{3559\ thp}]^2, 33211, 33223, 33247, 33287, 33289, 33301, 33311]\}_{[7\ cnt]_{[33203]_{3559\ thp}}+8=[33211]} = [33211]^2$$

$$SUM_{17_{start_{3594\ thp}}}\{[33577, 33581, 33587, 33589, 33599, 33601, 33613, 33617, 33619, [33623_{3603\ thp}]^2, 33629, 33637, 33641, 33647, 33679, 33703, 33713]\}_{[8\ cnt]_{[33623]_{3603\ thp}}+8=[33631]} = [33631]^2$$

$SUM_{21_{start_{356\,thp}}}\{[2393, 2399, 2411, 2417, 2423, 2437, 2441, 2447, 2459, 2467, 2473, [2477_{367\,thp}]^2, 2503, 2521, 2531, 2539, 2543, 2549, 2551, 2557, 2579]\}_{[cnt]_{[2477]_{367\,thp}}+10=[2487]} = [2487]^2$

$SUM_{21_{start_{562\,thp}}}\{[4079, 4091, 4093, 4099, 4111, 4127, 4129, 4133, 4139, 4153, 4157, [4159_{573\,thp}]^2, 4177, 4201, 4211, 4217, 4219, 4229, 4231, 4241, 4243]\}_{[2\,cnt]_{[4159]_{573\,thp}}+10=[4169]} = [4169]^2$

$SUM_{21_{start_{2201\,thp}}}\{[19427, 19429, 19433, 19441, 19447, 19457, 19463, 19469, 19471, 19477, 19483, [19489_{2212\,thp}]^2, 19501, 19507, 19531, 19541, 19543, 19553, 19559, 19571, 19577]\}_{[3\,cnt]_{[19489]_{2212\,thp}}+10=[19499]} = [19499]^2$

$SUM_{21_{start_{2999\,thp}}}\{[27437, 27449, 27457, 27479, 27481, 27487, 27509, 27527, 27529, 27539, 27541, [27551_{3010\,thp}]^2, 27581, 27583, 27611, 27617, 27631, 27647, 27653, 27673, 27689]\}_{[4\,cnt]_{[27551]_{3010\,thp}}+10=[27561]} = [27561]^2$

$SUM_{21_{start_{3465\,thp}}}\{[32309, 32321, 32323, 32327, 32341, 32353, 32359, 32363, 32369, 32371, 32377, [32381_{3476\,thp}]^2, 32401, 32411, 32413, 32423, 32429, 32441, 32443, 32467, 32479]\}_{[5\,cnt]_{[32381]_{3476\,thp}}+10=[32391]} = [32391]^2$

$SUM_{21_{start_{3624\,thp}}}\{[33829, 33851, 33857, 33863, 33871, 33889, 33893, 33911, 33923, 33931, 33937, [33941_{3635\,thp}]^2, 33961, 33967, 33997, 34019, 34031, 34033, 34039, 34057, 34061]\}_{[6\,cnt]_{[33941]_{3635\,thp}}+10=[33951]} = [33951]^2$

$SUM_{21_{start_{3816\,thp}}}\{[35923, 35933, 35951, 35963, 35969, 35977, 35983, 35993, 35999, 36007, 36011, [36013_{3827\,thp}]^2, 36017, 36037, 36061, 36067, 36073, 36083, 36097, 36107, 36109]\}_{[7\,cnt]_{[36013]_{3827\,thp}}+10=[36023]} = [36023]^2$

$SUM_{25_{start_{6148\ thp}}}$ $\{[61027, 61031, 61043, 61051, 61057, 61091, 61099, 61121, 61129, 61141, 61151, [61153_{6159\ thp}]^2, 61169, 61211, 61223, 61231, 61253, 61261, 61283, 61291, 61297]\}_{[8\ cnt]_{[61153]_{6159\ thp}}+10=[61163]} = [61163]^2$

$SUM_{25_{start_{1164\ thp}}}$ $\{[9413, 9419, 9421, 9431, 9433, 9437, 9439, 9461, 9463, 9467, 9473, 9479, 9491, [9497_{1177\ thp}]^2, 9511, 9521, 9533, 9539, 9547, 9551, 9587, 9601, 9613, 9619, 9623]\}_{[cnt]_{[9497]_{1177\ thp}}+12=[9509]} = [9509]^2$

$SUM_{25_{start_{1212\ thp}}}$ $\{[9829, 9833, 9839, 9851, 9857, 9859, 9871, 9883, 9887, 9901, 9907, 9923, 9929, [9931_{1225\ thp}]^2, 9941, 9949, 9967, 9973, 10007, 10009, 10037, 10039, 10061, 10067, 10069]\}_{[2\ cnt]_{[9931]_{1225\ thp}}+12=[9943]} = [9943]^2$

$SUM_{25_{start_{1213\ thp}}}$ $\{[9833, 9839, 9851, 9857, 9859, 9871, 9883, 9887, 9901, 9907, 9923, 9929, 9931, [9941_{1226\ thp}]^2, 9949, 9967, 9973, 10007, 10009, 10037, 10039, 10061, 10067, 10069, 10079]\}_{[3\ cnt]_{[9941]_{1226\ thp}}+12=[9953]} = [9953]^2$

$SUM_{25_{start_{3506\ thp}}}$ $\{[32687, 32693, 32707, 32713, 32717, 32719, 32749, 32771, 32779, 32783, 32789, 32797, 32801, [32803_{3519\ thp}]^2, 32831, 32833, 32839, 32843, 32869, 32887, 32909, 32911, 32917, 32933, 32939]\}_{[4\ cnt]_{[32803]_{3519\ thp}}+12=[32815]} = [32815]^2$

$SUM_{25_{start_{4307\ thp}}}$ $\{[41161, 41177, 41179, 41183, 41189, 41201, 41203, 41213, 41221, 41227, 41231, 41233, 41243, [41257_{4320\ thp}]^2, 41263, 41269, 41281, 41299, 41333, 41341, 41351, 41357, 41381, 41387, 41389]\}_{[5\ cnt]_{[41257]_{4320\ thp}}+12=[41269]} = [41269]^2$

$SUM_{25_{start_{5140\ thp}}}$ $\{[50069, 50077, 50087, 50093, 50101, 50111, 50119, 50123, 50129, 50131, 50147, 50153, 50159, [50177_{5153\ thp}]^2, 50207, 50221, 50227, 50231, 50261,$

$50263, 50273, 50287, 50291, 50311, 50321]\}_{[6\,cnt]_{[50177]_{5153\,thp}+12=[50189]}} = [50189]^2$

$SUM_{25_{start_{7728\,thp}}}\{[78791, 78797, 78803, 78809, 78823, 78839, 78853, 78857, 78877,$
$78887, 78889, 78893, 78901, [78919_{7741\,thp}]^2, 78929, 78941, 78977, 78979, 78989,$
$79031, 79039, 79043, 79063, 79087, 79103]\}_{[7\,cnt]_{[78919]_{7741\,thp}+12=[78931]}} = [78931]^2$

$SUM_{25_{start_{8134\,thp}}}\{[83311, 83339, 83341, 83357, 83383, 83389, 83399, 83401, 83407,$
$83417, 83423, 83431, 83437, [83443_{8147\,thp}]^2, 83449, 83459, 83471, 83477, 83497,$
$83537, 83557, 83561, 83563, 83579, 83591]\}_{[8\,cnt]_{[83443]_{8147\,thp}+12=[83455]}} = [83455]^2$

$SUM_{29_{start_{572\,thp}}}\{[4157, 4159, 4177, 4201, 4211, 4217, 4219, 4229, 4231, 4241, 4243,$
$4253, 4259, 4261, 4271, [4273_{587\,thp}]^2, 4283, 4289, 4297, 4327, 4337, 4339, 4349,$
$4357, 4363, 4373, 4391, 4397, 4409]\}_{[cnt]_{[4273]_{587\,thp}+14=[4287]}} = [4287]^2$

$SUM_{29_{start_{2896\,thp}}}\{[26357, 26371, 26387, 26393, 26399, 26407, 26417, 26423, 26431,$
$26437, 26449, 26459, 26479, 26489, 26497, [26501_{2911\,thp}]^2, 26513, 26539, 26557,$
$26561, 26573, 26591, 26597, 26627, 26633, 26641, 26647, 26669, 26681]\}$
$_{[2\,cnt]_{[26501]_{2911\,thp}+14=[26515]}} = [26515]^2$

$SUM_{29_{start_{4003\,thp}}}\{[37853, 37861, 37871, 37879, 37889, 37897, 37907, 37951, 37957,$
$37963, 37967, 37987, 37991, 37993, 37997, [38011_{4018\,thp}]^2, 38039, 38047, 38053,$
$38069, 38083, 38113, 38119, 38149, 38153, 38167, 38177, 38183, 38189]\}$
$_{[3\,cnt]_{[38011]_{4018\,thp}+14=[38025]}} = [38025]^2$

$SUM_{29_{start_{6724\,thp}}}\{[67493, 67499, 67511, 67523, 67531, 67537, 67547, 67559, 67567,$
$67577, 67579, 67589, 67601, 67607, 67619, [67631_{6739\,thp}]^2, 67651, 67679, 67699,$
$67709, 67723, 67733, 67741, 67751, 67757, 67759, 67763, 67777, 67783]\}$

$= [67645]^2$

$_{[4\ cnt]}[67631]_{6739\ thp} + 14 = [67645]$

$SUM_{29_{start_{7848\ thp}}}$ {[80153, 80167, 80173, 80177, 80191, 80207, 80209, 80221, 80231, 80233, 80239, 80251, 80263, 80273, 80279, $[80287_{7863\ thp}]^2$, 80309, 80317, 80329, 80341, 80347, 80363, 80369, 80387, 80407, 80429, 80447, 80449, 80471]}

$= [80301]^2$

$_{[5\ cnt]}[80287]_{7863\ thp} + 14 = [80301]$

$SUM_{29_{start_{10074\ thp}}}$ {[105601, 105607, 105613, 105619, 105649, 105653, 105667, 105673, 105683, 105691, 105701, 105727, 105733, 105751, 105761, $[105767_{10089\ thp}]^2$, 105769, 105817, 105829, 105863, 105871, 105883, 105899, 105907, 105913, 105929, 105943, 105953, 105967]}$_{[6\ cnt]}[105767]_{10089\ thp} + 14 = [105781]$ $= [105781]^2$

$SUM_{29_{start_{11510\ thp}}}$ {[122363, 122387, 122389, 122393, 122399, 122401, 122443, 122449, 122453, 122471, 122477, 122489, 122497, 122501, 122503, $[122509_{11525\ thp}]^2$, 122527, 122533, 122557, 122561, 122579, 122597, 122599, 122609, 122611, 122651, 122653, 122663, 122693]}$_{[7\ cnt]}[122509]_{11525\ thp} + 14 = [122523]$ $= [122523]^2$

$SUM_{29_{start_{11623\ thp}}}$ {[123677, 123701, 123707, 123719, 123727, 123731, 123733, 123737, 123757, 123787, 123791, 123803, 123817, 123821, 123829, $[123833_{11638\ thp}]^2$, 123853, 123863, 123887, 123911, 123923, 123931, 123941, 123953, 123973, 123979, 123983, 123989, 123997]}$_{[8\ cnt]}[123833]_{11638\ thp} + 14 = [123847]$ $= [123847]^2$

$SUM_{33_{start_{8056\ thp}}}$ {[82393, 82421, 82457, 82463, 82469, 82471, 82483, 82487, 82493, 82499, 82507, 82529, 82531, 82549, 82559, 82561, 82567, $[82571_{8073\ thp}]^2$, 82591, 82601, 82609, 82613, 82619, 82633, 82651, 82657, 82699, 82721, 82723, 82727, 82729, 82757, 82759]}$_{[cnt]}[82571]_{8073\ thp} + 16 = [82587]$ $= [82587]^2$

$SUM_{33_{start_{8218\ thp}}}$ {[84313, 84317, 84319, 84347, 84349, 84377, 84389, 84391, 84401, 84407, 84421, 84431, 84437, 84443, 84449, 84457, 84463, $[84467_{8235\ thp}]^2$, 84481, 84499, 84503, 84509, 84521, 84523, 84533, 84551, 84559, 84589, 84629, 84631, 84649, 84653, 84659]$\}_{[2\ cnt]_{[84467]_{8235\ thp}+16=[84483]}} = [84483]^2$

$SUM_{33_{start_{8667\ thp}}}$ {[89513, 89519, 89521, 89527, 89533, 89561, 89563, 89567, 89591, 89597, 89599, 89603, 89611, 89627, 89633, 89653, 89657, $[89659_{8684\ thp}]^2$, 89669, 89671, 89681, 89689, 89753, 89759, 89767, 89779, 89783, 89797, 89809, 89819, 89821, 89833, 89839]$\}_{[3\ cnt]_{[89659]_{8684\ thp}+16=[89675]}} = [89675]^2$

$SUM_{33_{start_{8965\ thp}}}$ {[92791, 92801, 92809, 92821, 92831, 92849, 92857, 92861, 92863, 92867, 92893, 92899, 92921, 92927, 92941, 92951, 92957, $[92959_{8982\ thp}]^2$, 92987, 92993, 93001, 93047, 93053, 93059, 93077, 93083, 93089, 93097, 93103, 93113, 93131, 93133, 93139]$\}_{[4\ cnt]_{[92959]_{8982\ thp}+16=[92975]}} = [92975]^2$

$SUM_{33_{start_{9241\ thp}}}$ {[95881, 95891, 95911, 95917, 95923, 95929, 95947, 95957, 95959, 95971, 95987, 95989, 96001, 96013, 96017, 96043, 96053, $[96059_{9258\ thp}]^2$, 96079, 96097, 96137, 96149, 96157, 96167, 96179, 96181, 96199, 96211, 96221, 96223, 96233, 96259, 96263]$\}_{[5\ cnt]_{[96059]_{9258\ thp}+16=[96075]}} = [96075]^2$

$SUM_{33_{start_{9280\ thp}}}$ {[96331, 96337, 96353, 96377, 96401, 96419, 96431, 96443, 96451, 96457, 96461, 96469, 96479, 96487, 96493, 96497, 96517, $[96527_{9297\ thp}]^2$, 96553, 96557, 96581, 96587, 96589, 96601, 96643, 96661, 96667, 96671, 96697, 96703, 96731, 96737, 96739]$\}_{[6\ cnt]_{[96527]_{9297\ thp}+16=[96543]}} = [96543]^2$

$SUM_{33_{start_{10461\ thp}}}$ {[110083, 110119, 110129, 110161, 110183, 110221, 110233, 110237, 110251, 110261, 110269, 110273, 110281, 110291, 110311, 110321, 110323, $[110339_{10478\ thp}]^2$, 110359, 110419, 110431, 110437, 110441, 110459, 110477, 110479, 110491, 110501, 110503, 110527, 110533, 110543, 110557]}

$$[7\,cnt]_{[110339]_{10478\,thp}} + 16 = [110355] = [110355]^2$$

$SUM_{33_{start_{12108\,thp}}}$ {[129379, 129401, 129403, 129419, 129439, 129443, 129449, 129457, 129461, 129469, 129491, 129497, 129499, 129509, 129517, 129527, 129529, $[129533_{12125\,thp}]^2$, 129539, 129553, 129581, 129587, 129589, 129593, 129607, 129629, 129631, 129641, 129643, 129671, 129707, 129719, 129733]}

$$[8\,cnt]_{[129533]_{12125\,thp}} + 16 = [129549] = [129549]^2$$

(7)

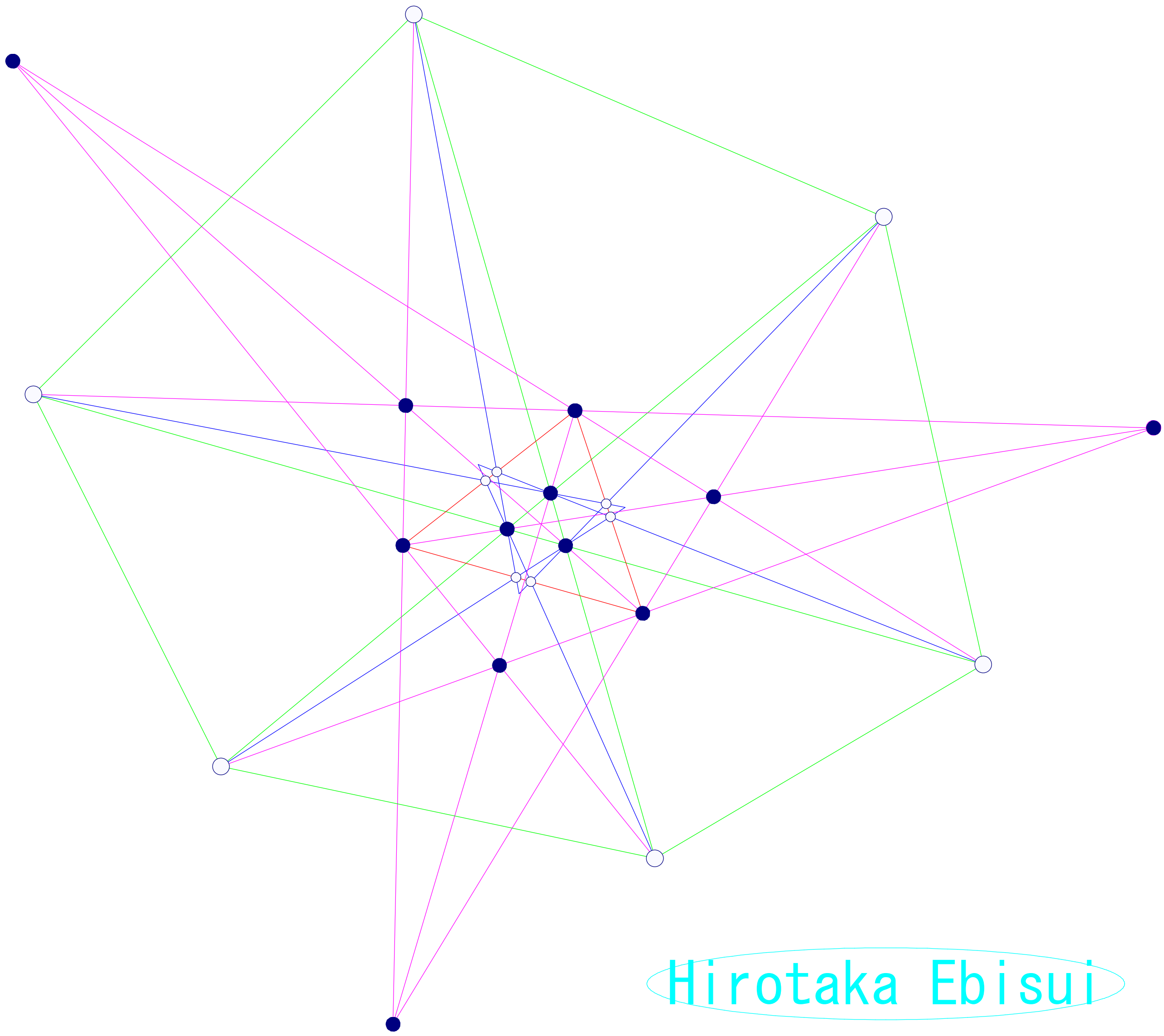
>

Collinear NOTE no. 9

ICGG K-JH

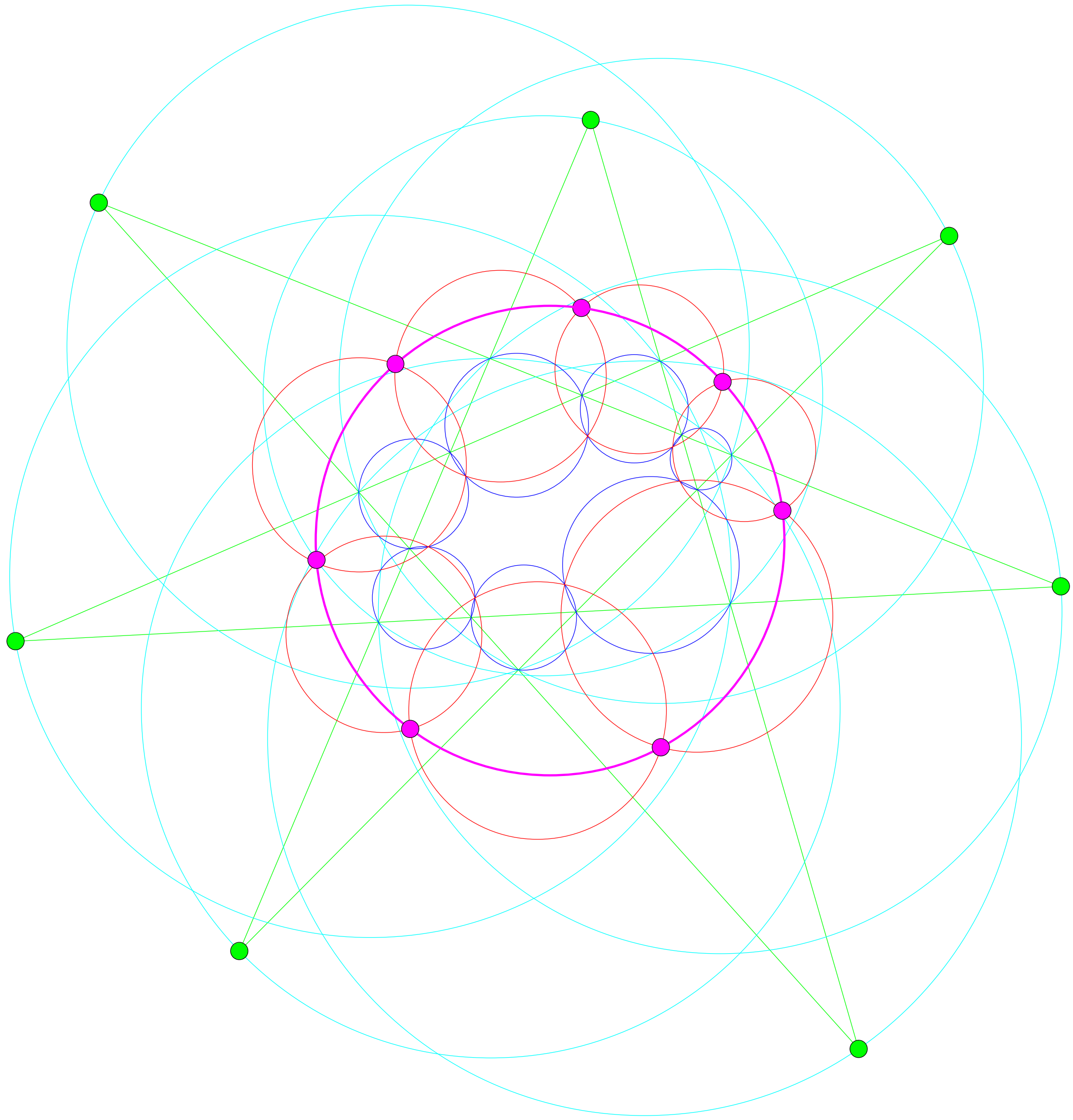
HEXAGON THEOREM

6 Points given freely



Hirotaka Ebisui

7点円の定理



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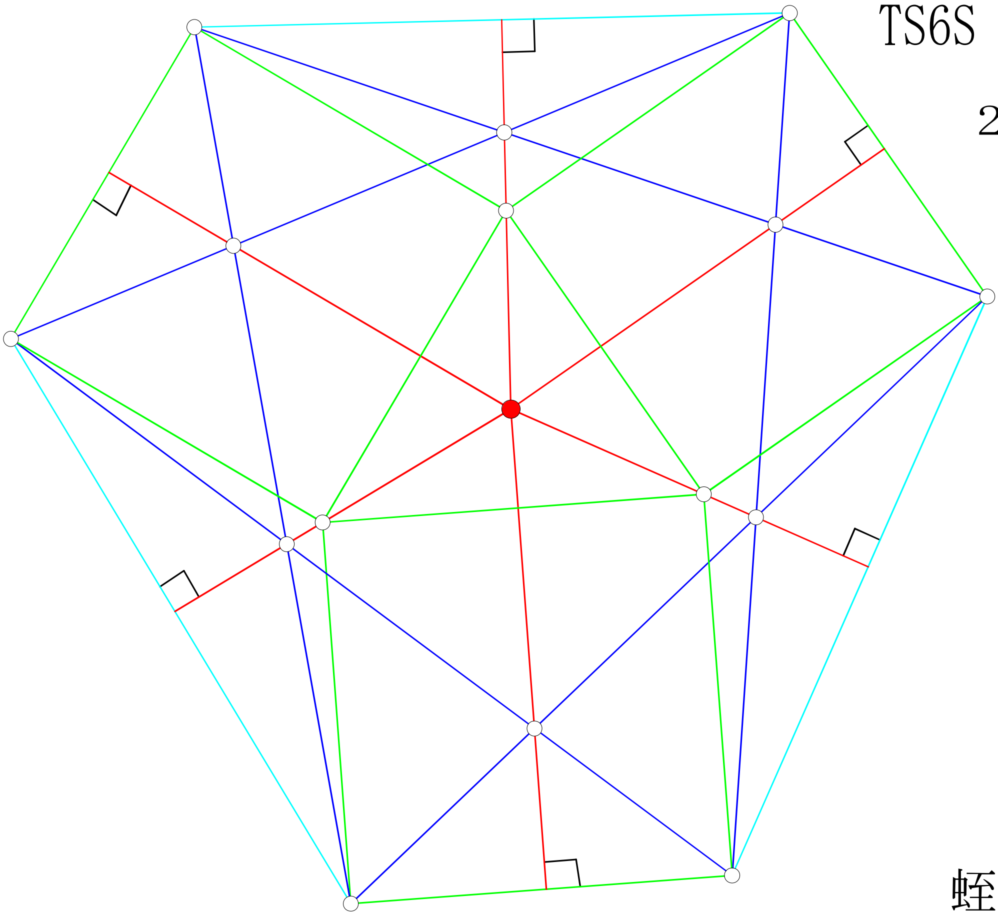
TS6S Theorem

2012-8-14



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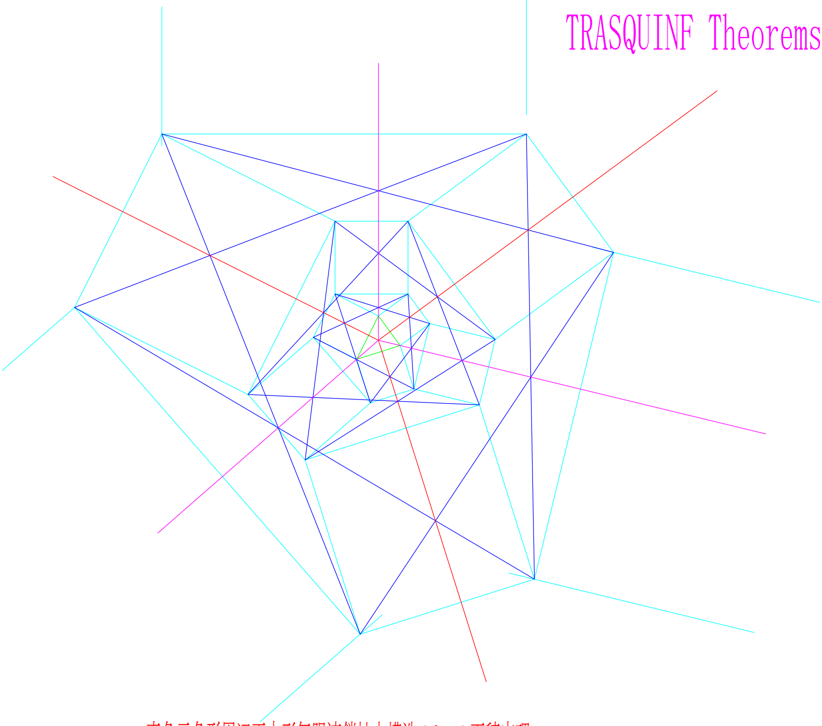
三角形の周辺正方形無限連鎖拡大構造の6垂線共点定理

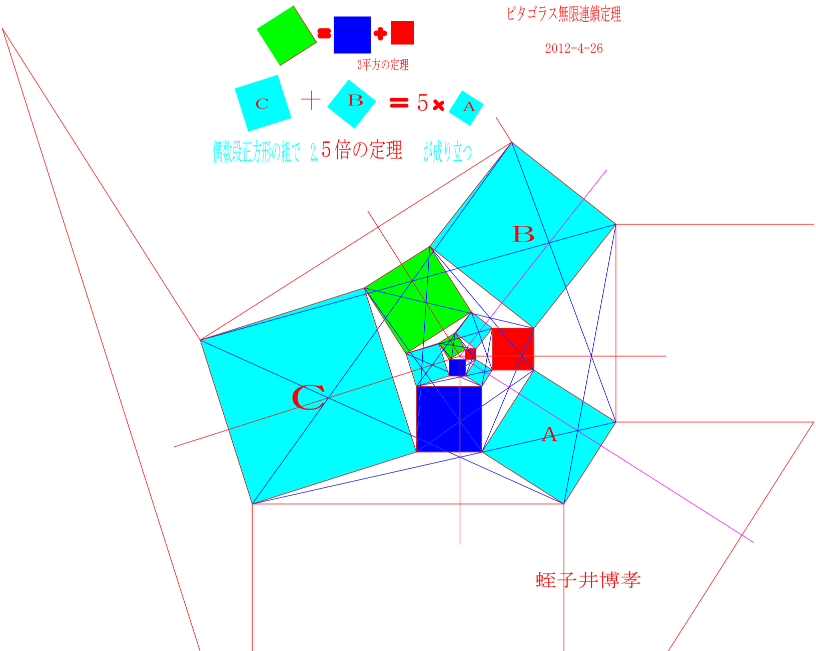
TRASQUINF Theorems



直角三角形周辺正方形無限連鎖拡大構造の2つの面積定理

ピタゴラス無限連鎖定理

2012-4-26



蛭子井博孝

数幾何形学

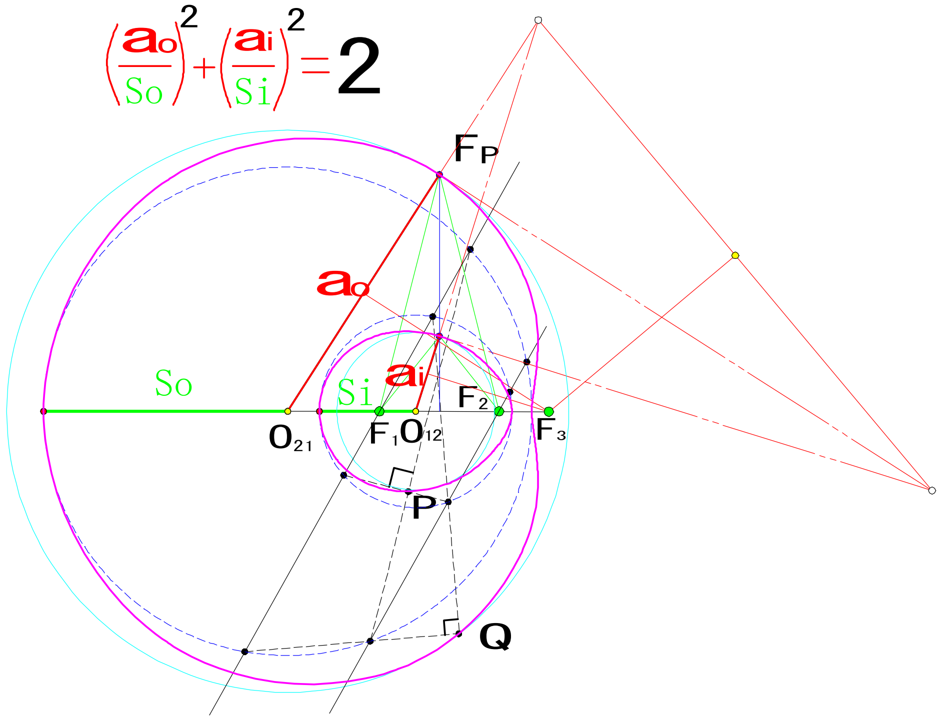
matheGeotics

蛭子井博孝

Doval 再考のために

Doval不変式

$$\left(\frac{a_o}{S_o}\right)^2+\left(\frac{a_i}{S_i}\right)^2=2$$



卵形線研究センター

http://eh85.blogzine.jp/

http://hoval.blogzine.jp/hoval/

> *#Hi-NUM by H.E:*

> **for** h **from** 1 **to** 10000 **do** $s := h + (h+1) + h + 2$:**if** floor$\left(evalf\left(s^{\frac{1}{2}}\right)\right)^2 = s$ **then** $print\left([h, [h+1], h+2] = \left[simplify\left(s^{\frac{1}{2}}\right)\right]^2\right)$ **fi**:**od**:

$$[2, [3], 4] = [3]^2$$
$$[11, [12], 13] = [6]^2$$
$$[26, [27], 28] = [9]^2$$
$$[47, [48], 49] = [12]^2$$
$$[74, [75], 76] = [15]^2$$
$$[107, [108], 109] = [18]^2$$
$$[146, [147], 148] = [21]^2$$
$$[191, [192], 193] = [24]^2$$
$$[242, [243], 244] = [27]^2$$
$$[299, [300], 301] = [30]^2$$
$$[362, [363], 364] = [33]^2$$
$$[431, [432], 433] = [36]^2$$
$$[506, [507], 508] = [39]^2$$
$$[587, [588], 589] = [42]^2$$
$$[674, [675], 676] = [45]^2$$
$$[767, [768], 769] = [48]^2$$
$$[866, [867], 868] = [51]^2$$
$$[971, [972], 973] = [54]^2$$
$$[1082, [1083], 1084] = [57]^2$$
$$[1199, [1200], 1201] = [60]^2$$
$$[1322, [1323], 1324] = [63]^2$$
$$[1451, [1452], 1453] = [66]^2$$
$$[1586, [1587], 1588] = [69]^2$$
$$[1727, [1728], 1729] = [72]^2$$
$$[1874, [1875], 1876] = [75]^2$$
$$[2027, [2028], 2029] = [78]^2$$
$$[2186, [2187], 2188] = [81]^2$$
$$[2351, [2352], 2353] = [84]^2$$
$$[2522, [2523], 2524] = [87]^2$$
$$[2699, [2700], 2701] = [90]^2$$
$$[2882, [2883], 2884] = [93]^2$$
$$[3071, [3072], 3073] = [96]^2$$
$$[3266, [3267], 3268] = [99]^2$$
$$[3467, [3468], 3469] = [102]^2$$

$$[3674, [3675], 3676] = [105]^2$$
$$[3887, [3888], 3889] = [108]^2$$
$$[4106, [4107], 4108] = [111]^2$$
$$[4331, [4332], 4333] = [114]^2$$
$$[4562, [4563], 4564] = [117]^2$$
$$[4799, [4800], 4801] = [120]^2$$
$$[5042, [5043], 5044] = [123]^2$$
$$[5291, [5292], 5293] = [126]^2$$
$$[5546, [5547], 5548] = [129]^2$$
$$[5807, [5808], 5809] = [132]^2$$
$$[6074, [6075], 6076] = [135]^2$$
$$[6347, [6348], 6349] = [138]^2$$
$$[6626, [6627], 6628] = [141]^2$$
$$[6911, [6912], 6913] = [144]^2$$
$$[7202, [7203], 7204] = [147]^2$$
$$[7499, [7500], 7501] = [150]^2$$
$$[7802, [7803], 7804] = [153]^2$$
$$[8111, [8112], 8113] = [156]^2$$
$$[8426, [8427], 8428] = [159]^2$$
$$[8747, [8748], 8749] = [162]^2$$
$$[9074, [9075], 9076] = [165]^2$$
$$[9407, [9408], 9409] = [168]^2$$
$$[9746, [9747], 9748] = [171]^2 \quad \textbf{(1)}$$

> **for** e **from** 3 **to** 11 **by** 2 **do** $print$("---") :**for** h **from** 1 **to** 200 **do** $s := \sum_{m=1}^{e} (h+m)$:**if** floor$\left(evalf\left(s^{\frac{1}{2}}\right)\right)^2 = s$ **then** $print\left(SUM\ e\ [seq(h+j, j=1..e)] = \left[simplify\left(s^{\frac{1}{2}}\right)\right]^2\right)$ **fi**:**od**:**od**:

"---"

$$3\ SUM\ [2, 3, 4] = [3]^2$$
$$3\ SUM\ [11, 12, 13] = [6]^2$$
$$3\ SUM\ [26, 27, 28] = [9]^2$$
$$3\ SUM\ [47, 48, 49] = [12]^2$$
$$3\ SUM\ [74, 75, 76] = [15]^2$$
$$3\ SUM\ [107, 108, 109] = [18]^2$$
$$3\ SUM\ [146, 147, 148] = [21]^2$$
$$3\ SUM\ [191, 192, 193] = [24]^2$$

"---"

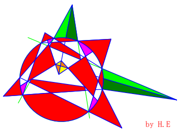
$$5\ SUM\ [3, 4, 5, 6, 7] = [5]^2$$

$$5\ SUM[18, 19, 20, 21, 22] = [10]^2$$
$$5\ SUM[43, 44, 45, 46, 47] = [15]^2$$
$$5\ SUM[78, 79, 80, 81, 82] = [20]^2$$
$$5\ SUM[123, 124, 125, 126, 127] = [25]^2$$
$$5\ SUM[178, 179, 180, 181, 182] = [30]^2$$
"---"
$$7\ SUM[4, 5, 6, 7, 8, 9, 10] = [7]^2$$
$$7\ SUM[25, 26, 27, 28, 29, 30, 31] = [14]^2$$
$$7\ SUM[60, 61, 62, 63, 64, 65, 66] = [21]^2$$
$$7\ SUM[109, 110, 111, 112, 113, 114, 115] = [28]^2$$
$$7\ SUM[172, 173, 174, 175, 176, 177, 178] = [35]^2$$
"---"
$$9\ SUM[5, 6, 7, 8, 9, 10, 11, 12, 13] = [9]^2$$
$$9\ SUM[12, 13, 14, 15, 16, 17, 18, 19, 20] = [12]^2$$
$$9\ SUM[21, 22, 23, 24, 25, 26, 27, 28, 29] = [15]^2$$
$$9\ SUM[32, 33, 34, 35, 36, 37, 38, 39, 40] = [18]^2$$
$$9\ SUM[45, 46, 47, 48, 49, 50, 51, 52, 53] = [21]^2$$
$$9\ SUM[60, 61, 62, 63, 64, 65, 66, 67, 68] = [24]^2$$
$$9\ SUM[77, 78, 79, 80, 81, 82, 83, 84, 85] = [27]^2$$
$$9\ SUM[96, 97, 98, 99, 100, 101, 102, 103, 104] = [30]^2$$
$$9\ SUM[117, 118, 119, 120, 121, 122, 123, 124, 125] = [33]^2$$
$$9\ SUM[140, 141, 142, 143, 144, 145, 146, 147, 148] = [36]^2$$
$$9\ SUM[165, 166, 167, 168, 169, 170, 171, 172, 173] = [39]^2$$
$$9\ SUM[192, 193, 194, 195, 196, 197, 198, 199, 200] = [42]^2$$
"---"
$$11\ SUM[6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16] = [11]^2$$
$$11\ SUM[39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49] = [22]^2$$
$$11\ SUM[94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104] = [33]^2$$
$$11\ SUM[171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181] = [44]^2 \quad (2)$$

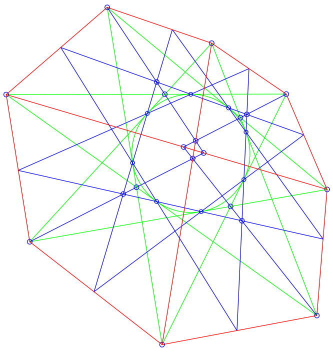
```
> # subtract [27]^2 from both sides
(9*SUM*[77, 78, 79, 80, 81, 82, 83, 84, 85] = [27]^2) -~ ([27]^2)
```

$$9\ SUM[77, 78, 79, 80, 81, 82, 83, 84, 85] - [27]^2 = 0 \quad (3)$$

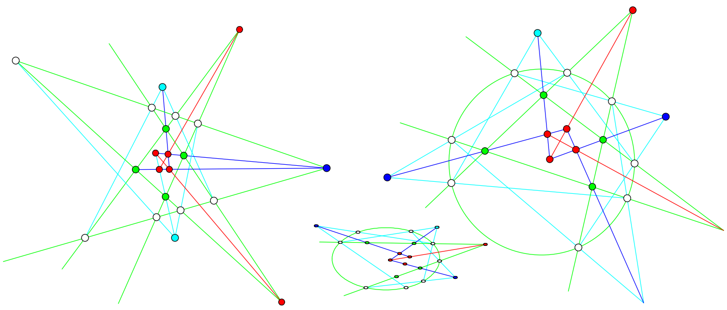
```
>
```

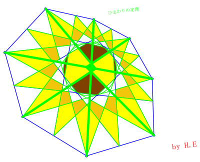


Sun flower Theorem



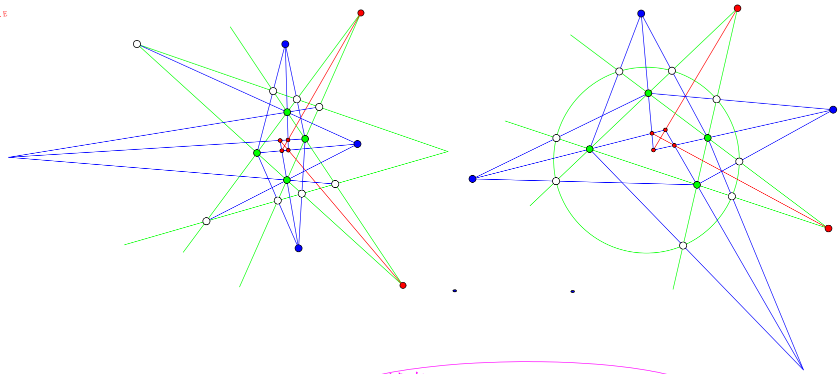
Theorem 3. RED Rose line Theorem and Circle Thoerem



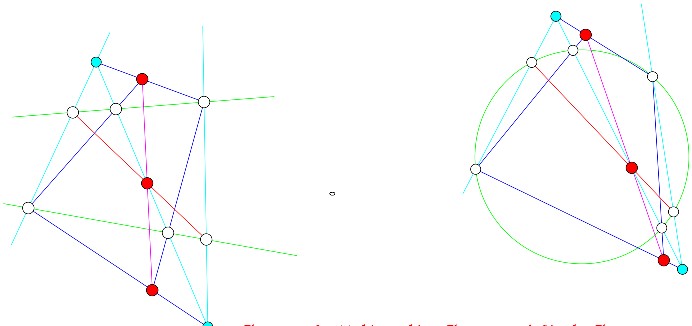


Theorem 4 Blue Rose line theorem and Circle theorem

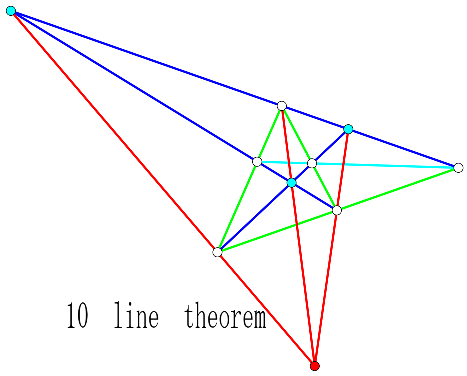
古典射影幾何



8 博孝 theorems for Cosmos



Theorem 2. 11 lines line Theorem and Circle Thoerem

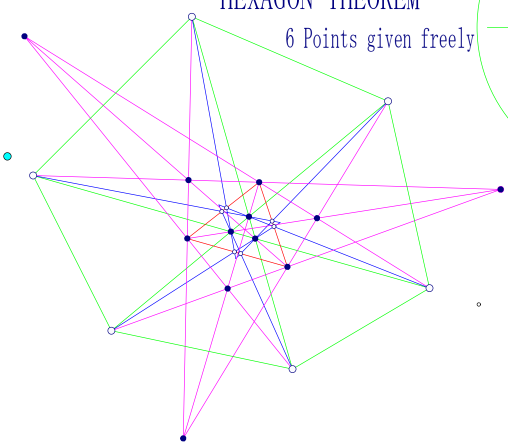


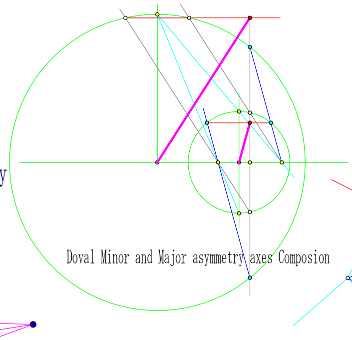
10 line theorem

新公準幾何

HEXAGON THEOREM

6 Points given freely

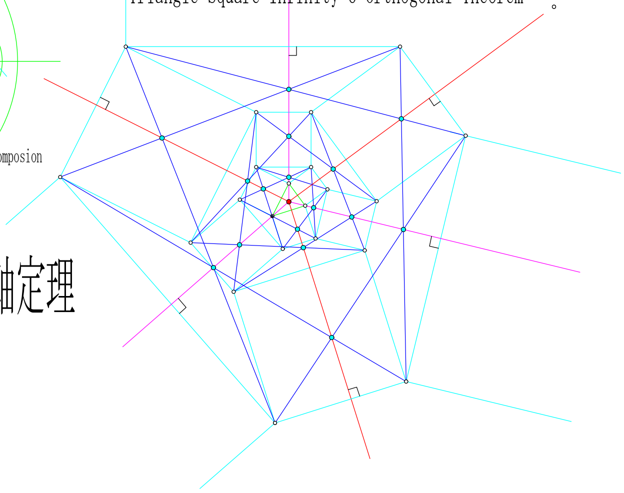




Doval幾何学短軸定理

新基本幾何 TS6S Theorem

Triangle Square Infinity 6 Orthogonal Theorem



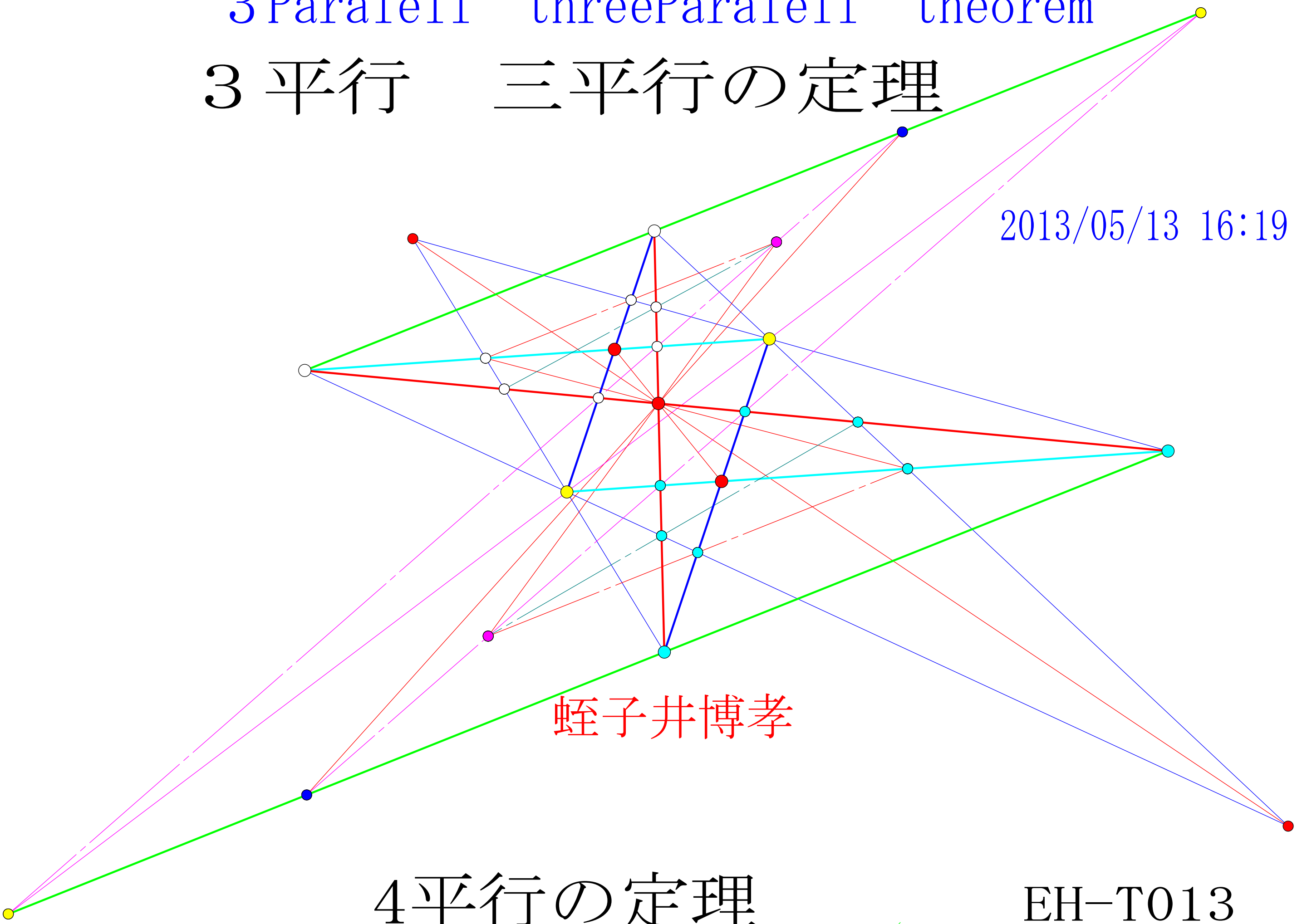
2013-01-07 by H.E

EH−T012

3 Paralell threeParalell theorem

３平行　三平行の定理

2013/05/13 16:19

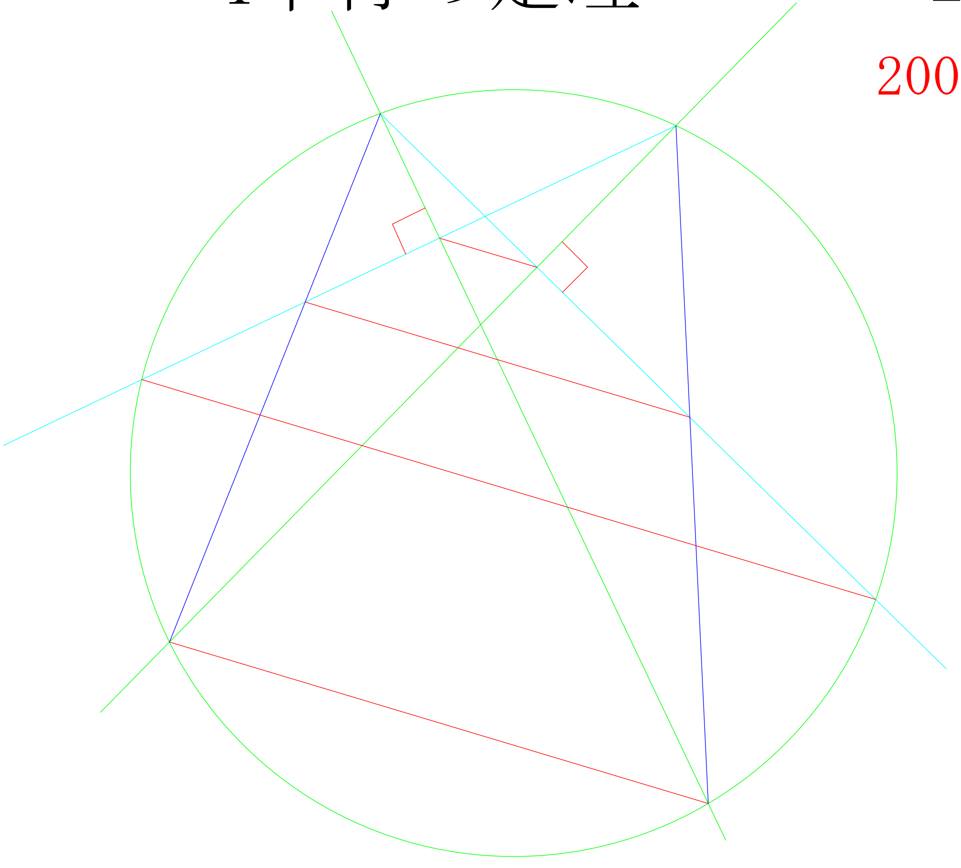


蛭子井博孝

4平行の定理

EH−T013

2009-3-20



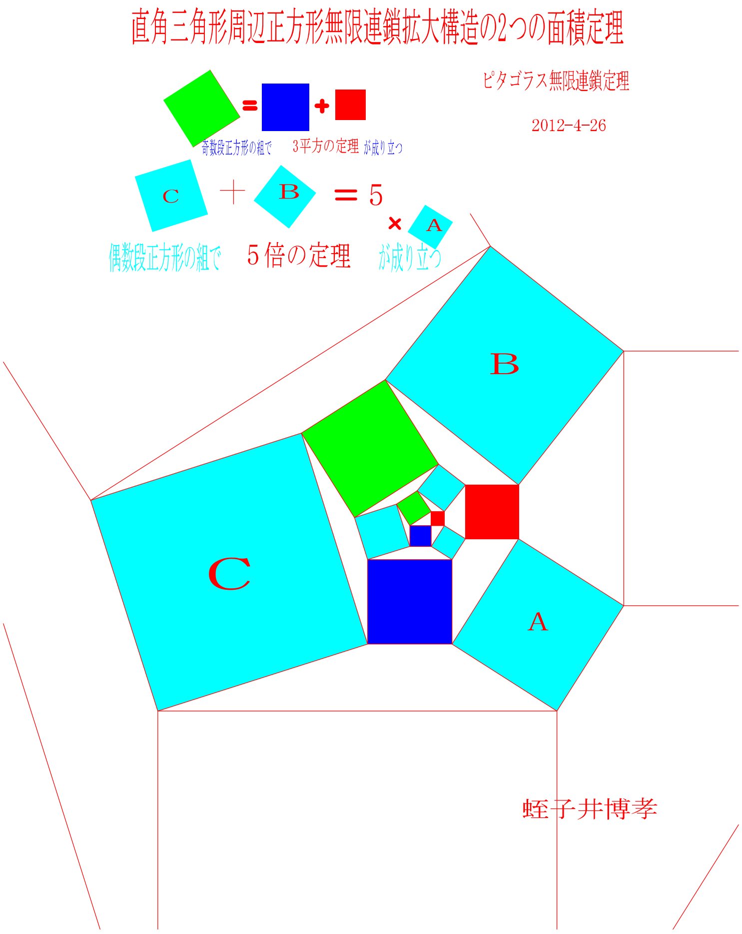
ピタゴラス無限連鎖拡大構造の中の定理

（三平方の定理　五倍の定理　共点定理）

蛭子井博孝著

1．拡大構造

1-1　図による拡大



奇数段　三平方の定理　２節プログラムリスト参照

　赤　青　緑　各段　辺の長さ　Ｘｎ*a　Ｘｎ*b　Ｘｎ*SQRT(a^2+b^2),

　　X(ｎ+2)=5*X(ｎ+1)-Xn　　　　X2=4　X1=1

偶数段　５倍の定理

　C　B　A　各段　辺の長さ　Yn*sqrt(4*b^2+a^2)　Yn*sqrt(b^2+4*a^2)　sqrt(a^2+b^2)

　　Y(n+2)=5*Y(n+1)-Yn　　Y2=5　Y1=1

> $\#(((a^2+b^2=)c^2+d^3+e^3=)f^3+g^4+h^4=z^4)i^5+j^5=k^5$ **by** $H.E$:

>

> $t := 0 : tc := 0 : the := 0$:**for** m **from** 2 **to** 20 **do for** n **from** 1 **to** $m-1$ **do for** x **from** 1 **to** 200 **do for** y **from** $x+1$ **to** 200 **do** $h := (2\,m\cdot n)^2+(m^2-n^2)^2+x^3+y^3$: **if** $\mathrm{floor}\left(evalf\left(h^{\frac{1}{3}}\right)\right)^3 = h$ **then** $t := t+1$:**for** $x1$ **from** 1 **to** 200 **do for** $y1$ **from** $x1+1$ **to** 200 **do** $s := h+x1^4+y1^4$: **if** $\mathrm{floor}\left(evalf\left(s^{\frac{1}{4}}\right)\right)^4 = s$ **then** $tc := tc+1 : TS\|tc = [h, s]$: $print(PFEno([t, tc]), \text{"蛭子井博孝"})$: $print([2\cdot m\cdot n]^2+[m^2-n^2]^2=[m^2+n^2]^2)$: $print([m^2+n^2]^2+[x]^3+[y]^3=[simplify(h^{\frac{1}{3}})]^3)$: $print([2\cdot m\cdot n]^2+[m^2-n^2]^2+[x]^3+[y]^3+[x1]^4+[y1]^4=[simplify(s^{\frac{1}{4}})]^4)$ **fi**:**od**:**od fi**:**od**:**od**:**od**:**od**:

$PFEno([20, 1])$, "蛭子井博孝"

$[60]^2+[91]^2=[109]^2$

$[109]^2+[6]^3+[63]^3=[64]^3$

$[60]^2+[91]^2+[6]^3+[63]^3+[4]^4+[31]^4=[33]^4$

$PFEno([20, 2])$, "蛭子井博孝"

$[60]^2+[91]^2=[109]^2$

$[109]^2+[6]^3+[63]^3=[64]^3$

$[60]^2+[91]^2+[6]^3+[63]^3+[8]^4+[16]^4=[24]^4$

$PFEno([20, 3])$, "蛭子井博孝"

$[60]^2+[91]^2=[109]^2$

$[109]^2+[6]^3+[63]^3=[64]^3$

$[60]^2+[91]^2+[6]^3+[63]^3+[12]^4+[24]^4=[28]^4$

$PFEno([20, 4])$, "蛭子井博孝"

$[60]^2+[91]^2=[109]^2$

$[109]^2+[6]^3+[63]^3=[64]^3$

$[60]^2+[91]^2+[6]^3+[63]^3+[56]^4+[64]^4=[72]^4$

$PFEno([78, 5])$, "蛭子井博孝"

$[300]^2+[125]^2=[325]^2$

$[325]^2+[26]^3+[63]^3=[72]^3$

$[300]^2+[125]^2+[26]^3+[63]^3+[18]^4+[24]^4=[30]^4$

$PFEno([83, 6])$, "蛭子井博孝"

$[224]^2+[207]^2=[305]^2$

$[305]^2+[14]^3+[55]^3=[64]^3$

$[224]^2+[207]^2+[14]^3+[55]^3+[4]^4+[31]^4=[33]^4$

$PFEno([83, 7])$, "蛭子井博孝"

$[224]^2+[207]^2=[305]^2$

$[305]^2+[14]^3+[55]^3=[64]^3$

$[224]^2+[207]^2+[14]^3+[55]^3+[8]^4+[16]^4=[24]^4$

$PFEno([83, 8])$, "蛭子井博孝"

$[224]^2 + [207]^2 = [305]^2$

$[305]^2 + [14]^3 + [55]^3 = [64]^3$

$[224]^2 + [207]^2 + [14]^3 + [55]^3 + [12]^4 + [24]^4 = [28]^4$

$PFEno([83, 9])$, "蛭子井博孝"

$[224]^2 + [207]^2 = [305]^2$

$[305]^2 + [14]^3 + [55]^3 = [64]^3$

$[224]^2 + [207]^2 + [14]^3 + [55]^3 + [56]^4 + [64]^4 = [72]^4$

$PFEno([93, 10])$, "蛭子井博孝"

$[136]^2 + [273]^2 = [305]^2$

$[305]^2 + [14]^3 + [55]^3 = [64]^3$

$[136]^2 + [273]^2 + [14]^3 + [55]^3 + [4]^4 + [31]^4 = [33]^4$

$PFEno([93, 11])$, "蛭子井博孝"

$[136]^2 + [273]^2 = [305]^2$

$[305]^2 + [14]^3 + [55]^3 = [64]^3$

$[136]^2 + [273]^2 + [14]^3 + [55]^3 + [8]^4 + [16]^4 = [24]^4$

$PFEno([93, 12])$, "蛭子井博孝"

$[136]^2 + [273]^2 = [305]^2$

$[305]^2 + [14]^3 + [55]^3 = [64]^3$

$[136]^2 + [273]^2 + [14]^3 + [55]^3 + [12]^4 + [24]^4 = [28]^4$

$PFEno([93, 13])$, "蛭子井博孝"

$[136]^2 + [273]^2 = [305]^2$

$[305]^2 + [14]^3 + [55]^3 = [64]^3$

$[136]^2 + [273]^2 + [14]^3 + [55]^3 + [56]^4 + [64]^4 = [72]^4$

$PFEno([95, 14])$, "蛭子井博孝"

$[170]^2 + [264]^2 = [314]^2$

$[314]^2 + [3]^3 + [65]^3 = [72]^3$

$[170]^2 + [264]^2 + [3]^3 + [65]^3 + [18]^4 + [24]^4 = [30]^4$

$PFEno([96, 15])$, "蛭子井博孝"

$[204]^2 + [253]^2 = [325]^2$

$[325]^2 + [26]^3 + [63]^3 = [72]^3$

$[204]^2 + [253]^2 + [26]^3 + [63]^3 + [18]^4 + [24]^4 = [30]^4$

$PFEno([102, 16])$, "蛭子井博孝"

$[36]^2 + [323]^2 = [325]^2$

$[325]^2 + [26]^3 + [63]^3 = [72]^3$

$[36]^2 + [323]^2 + [26]^3 + [63]^3 + [18]^4 + [24]^4 = [30]^4$

$PFEno([108, 17])$, "蛭子井博孝"

$[216]^2 + [288]^2 = [360]^2$

$[360]^2 + [28]^3 + [48]^3 = [64]^3$

$[216]^2 + [288]^2 + [28]^3 + [48]^3 + [4]^4 + [31]^4 = [33]^4$

$PFEno([108, 18])$, "蛭子井博孝"

$$[216]^2 + [288]^2 = [360]^2$$

$$[360]^2 + [28]^3 + [48]^3 = [64]^3$$

$$[216]^2 + [288]^2 + [28]^3 + [48]^3 + [8]^4 + [16]^4 = [24]^4$$

$PFEno([108, 19])$, "蛭子井博孝"

$$[216]^2 + [288]^2 = [360]^2$$

$$[360]^2 + [28]^3 + [48]^3 = [64]^3$$

$$[216]^2 + [288]^2 + [28]^3 + [48]^3 + [12]^4 + [24]^4 = [28]^4$$

$PFEno([108, 20])$, "蛭子井博孝"

$$[216]^2 + [288]^2 = [360]^2$$

$$[360]^2 + [28]^3 + [48]^3 = [64]^3$$

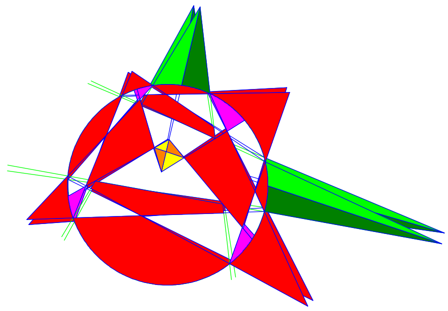
$$[216]^2 + [288]^2 + [28]^3 + [48]^3 + [56]^4 + [64]^4 = [72]^4 \quad (1)$$

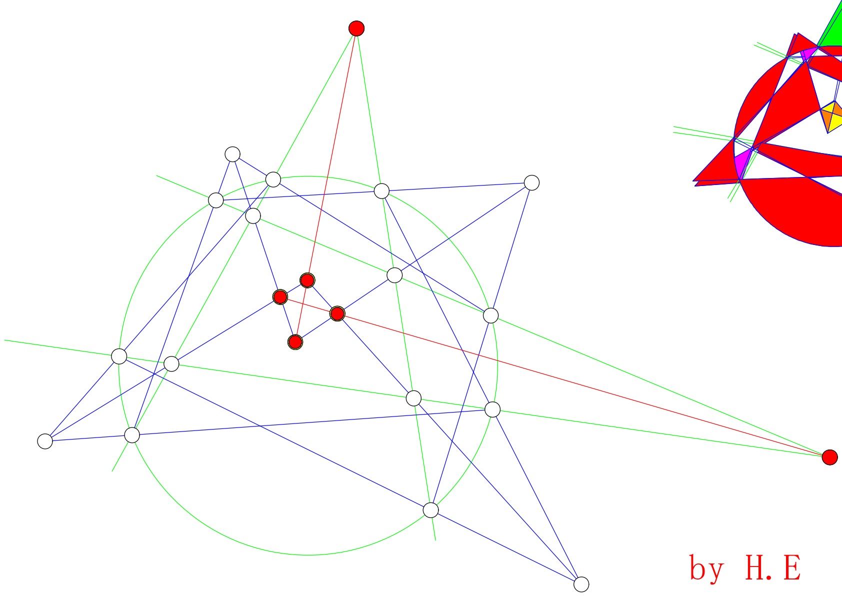
>

>

>

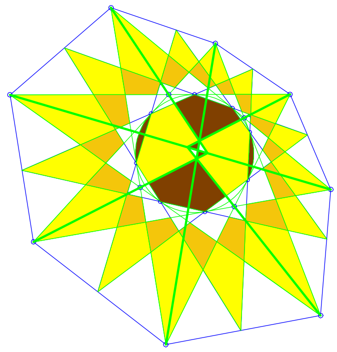
EH–T007

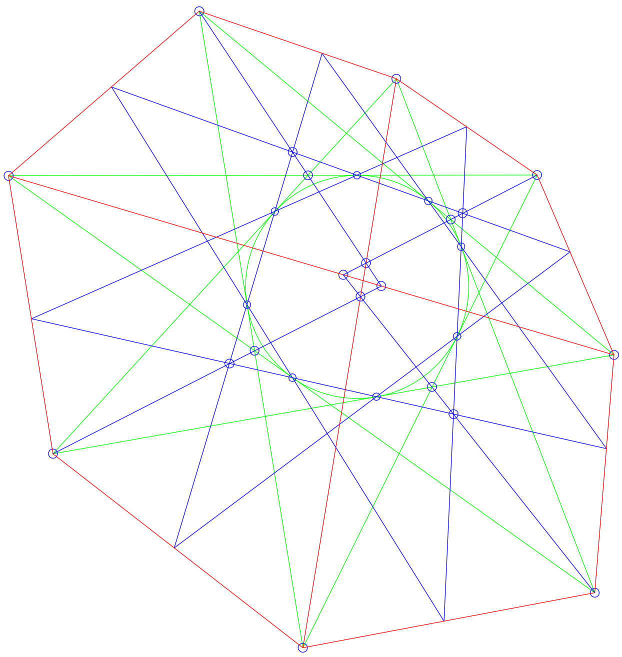




by H.E

RED ROSE THEOREM

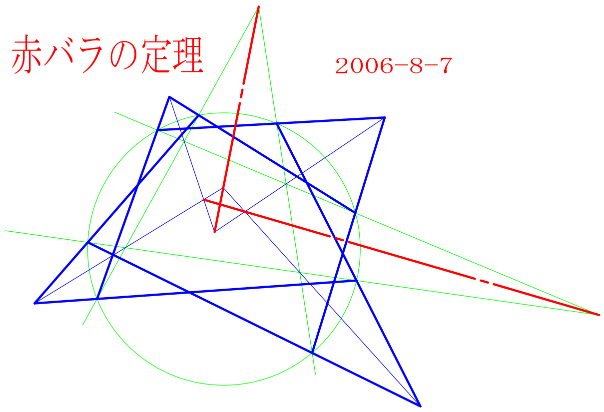


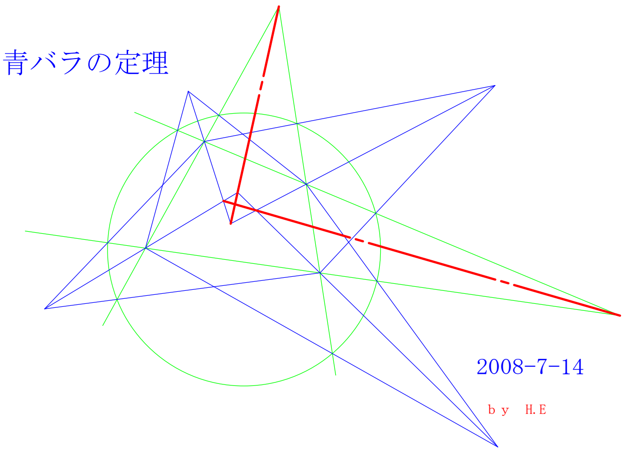


EH–T008

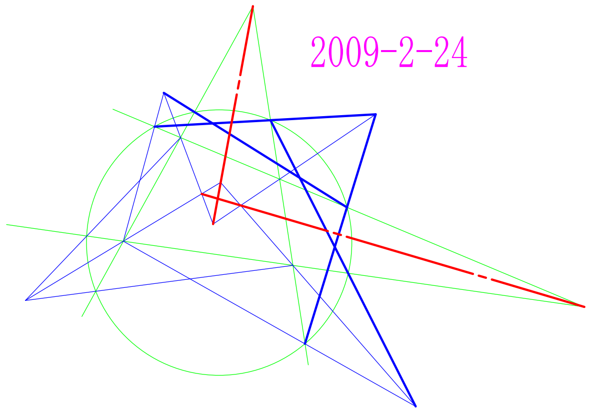
SUN FLOWER THEOREM

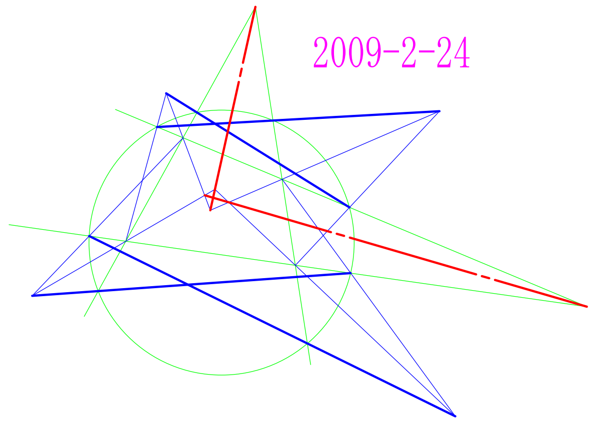
FI-332

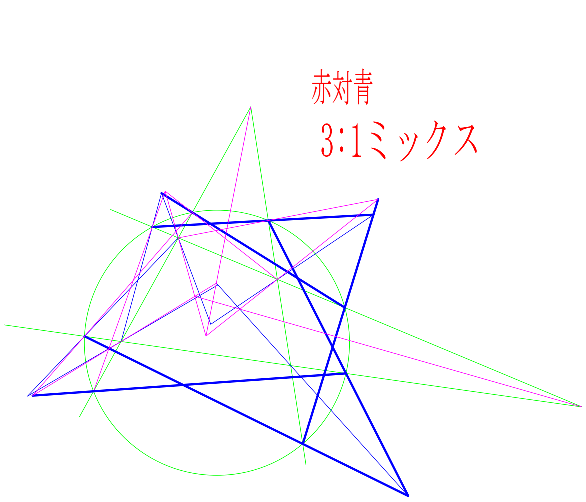


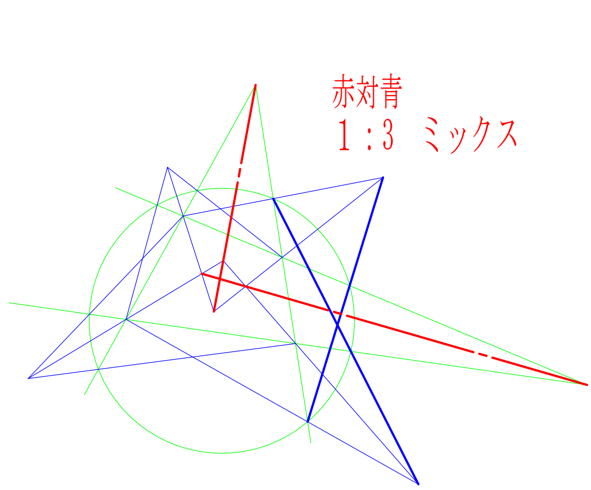


青バラ赤バラ混種定理







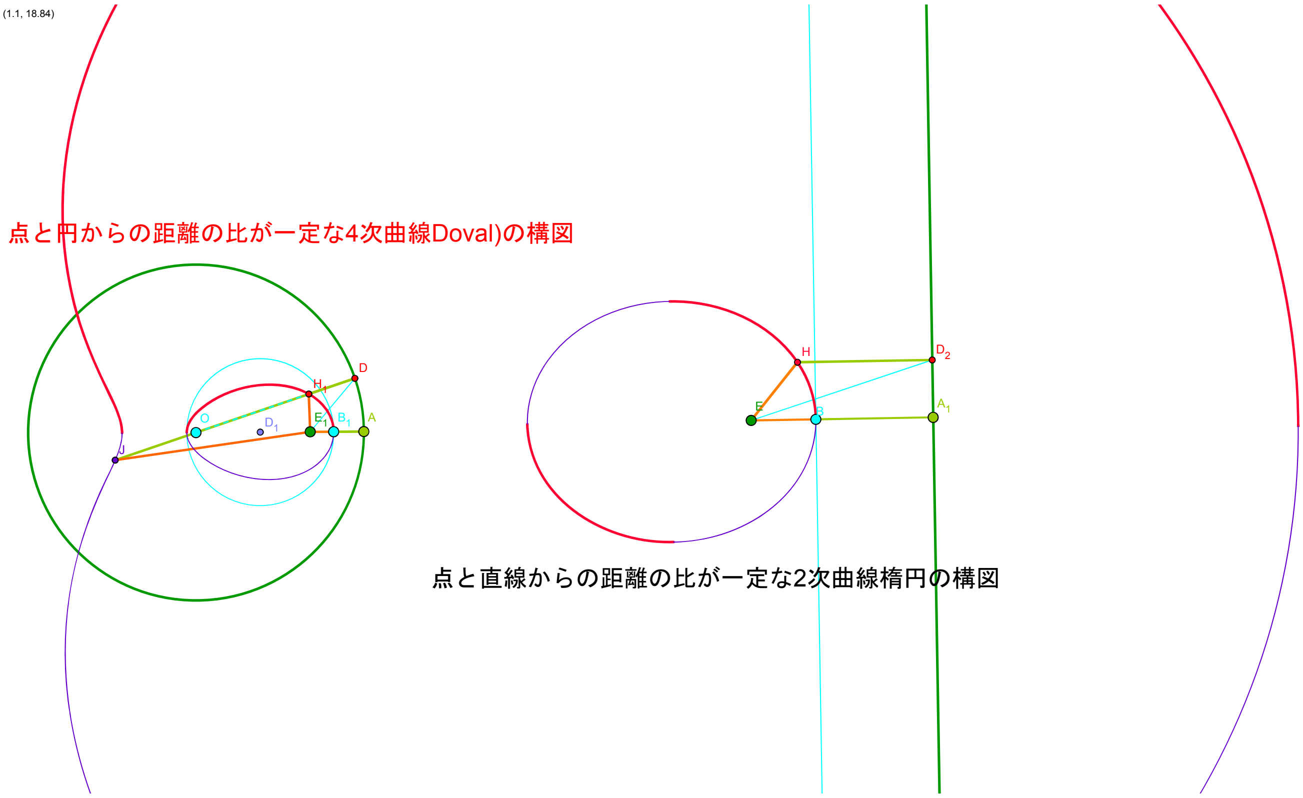


蛭子井博孝

図形定理の本質=構成【構造】の等価性

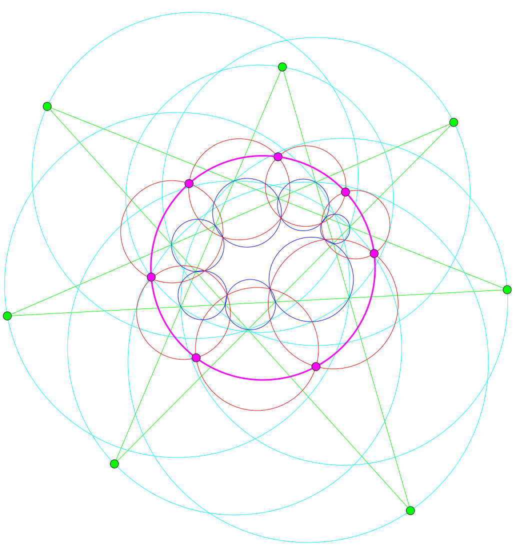
蛭子井博孝　:　　　　　　　- 2013-9-23

(1.1, 18.84)

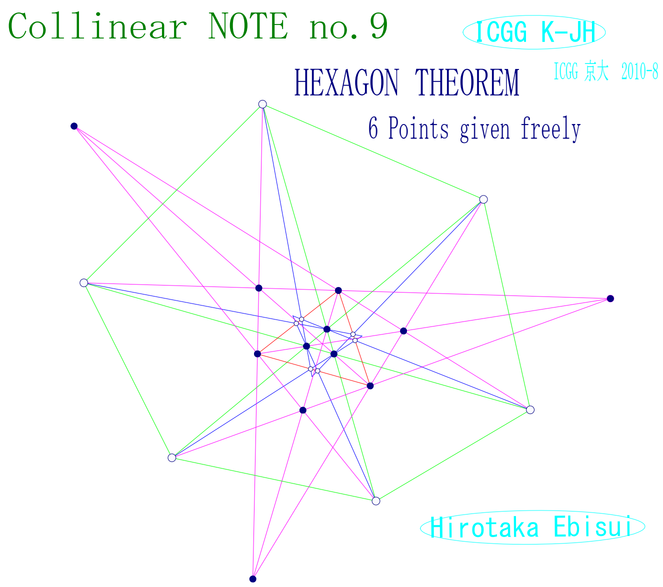


図形定理の本質：任意の位置からでる規則性

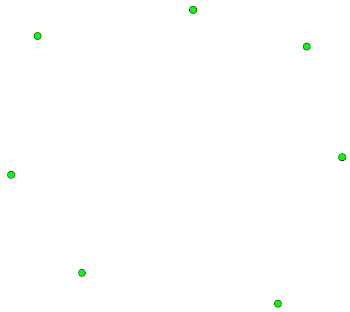
7点円の定理



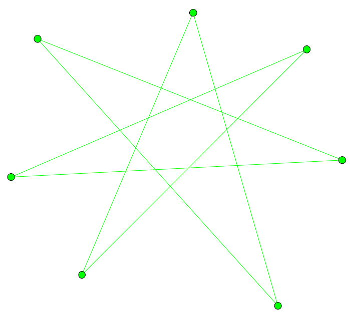
蛭子井博孝



(1) Seven Poitns are given.

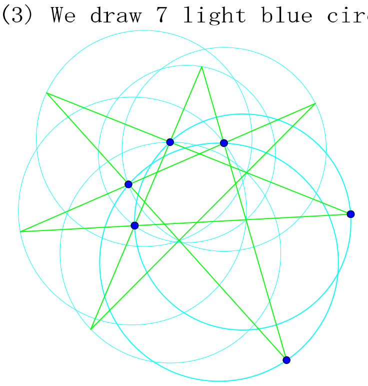


(2) Seven Poitns are connected like this

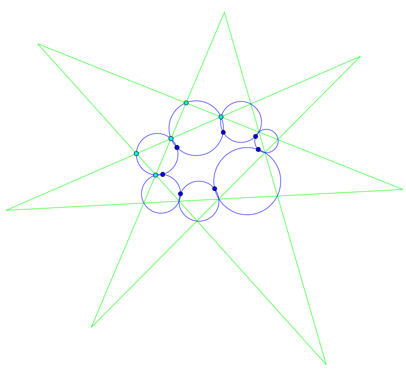


(3) We chose 3 closs points whichare trianlge and draw a circle.

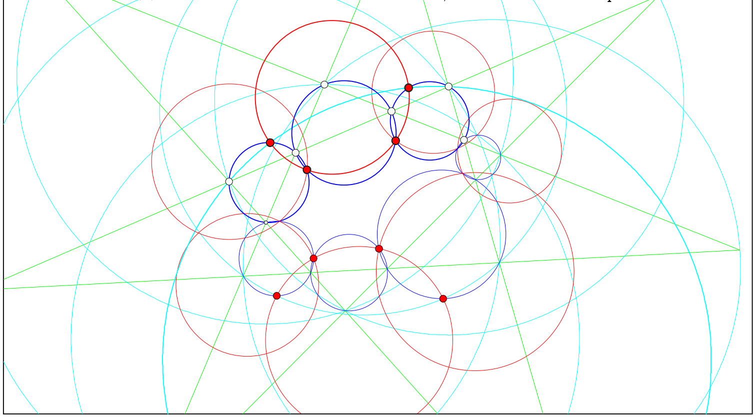
(3) We draw 7 light blue circles

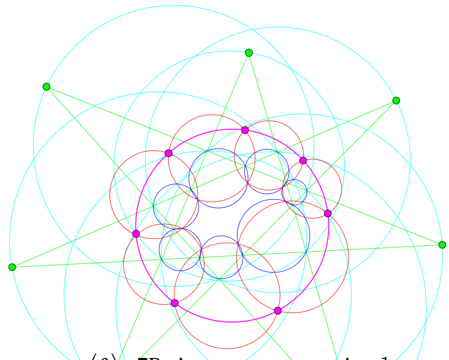


(4) We draw 7 blue circles then 7points apear



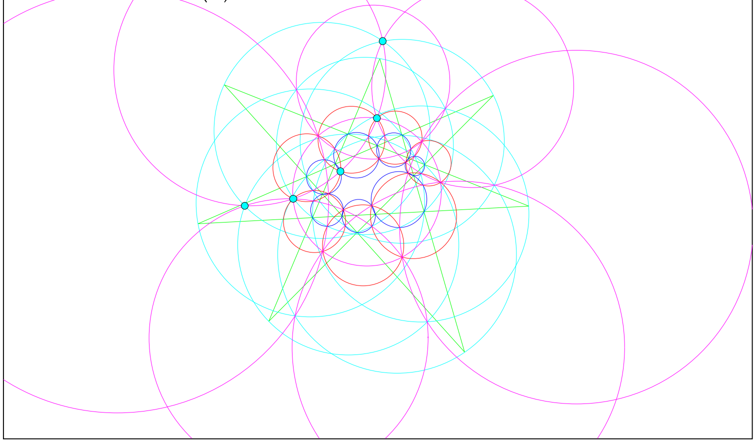
(5) 4Poitns decide one circle then, 7 red circles apear





(6) 7Points are co circle

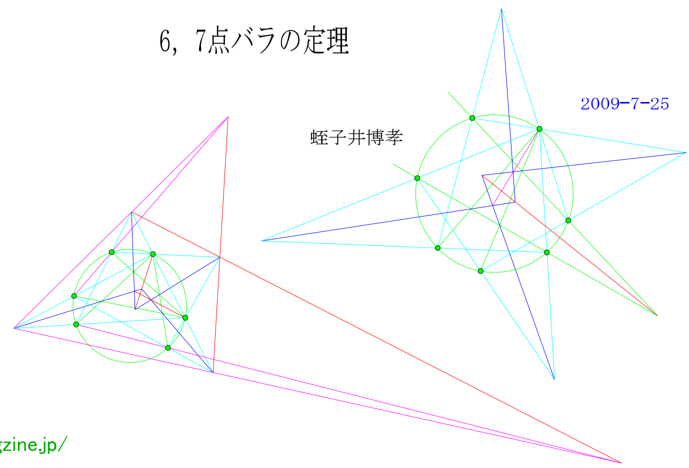
(7) 5Points are co circle



6, 7点バラの定理

蛭子井博孝

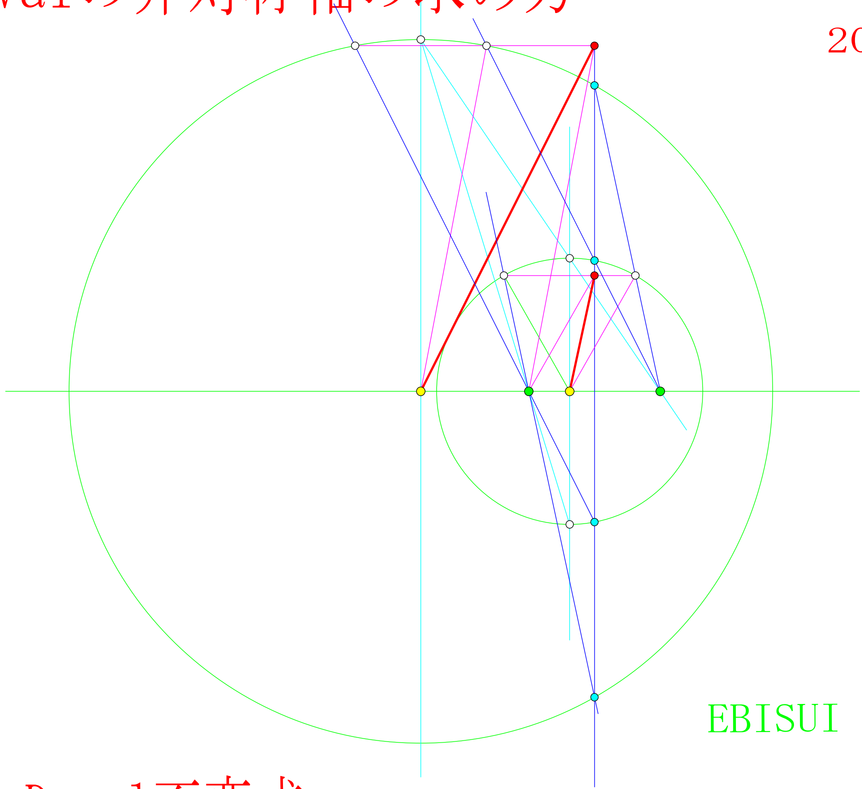
2009-7-25



Dovalとは、点と円からの距離の比が一定な4次曲線で、点と線からの距離の比が一定な曲線である2次曲線の高等化

Dovalの非対称軸の求め方

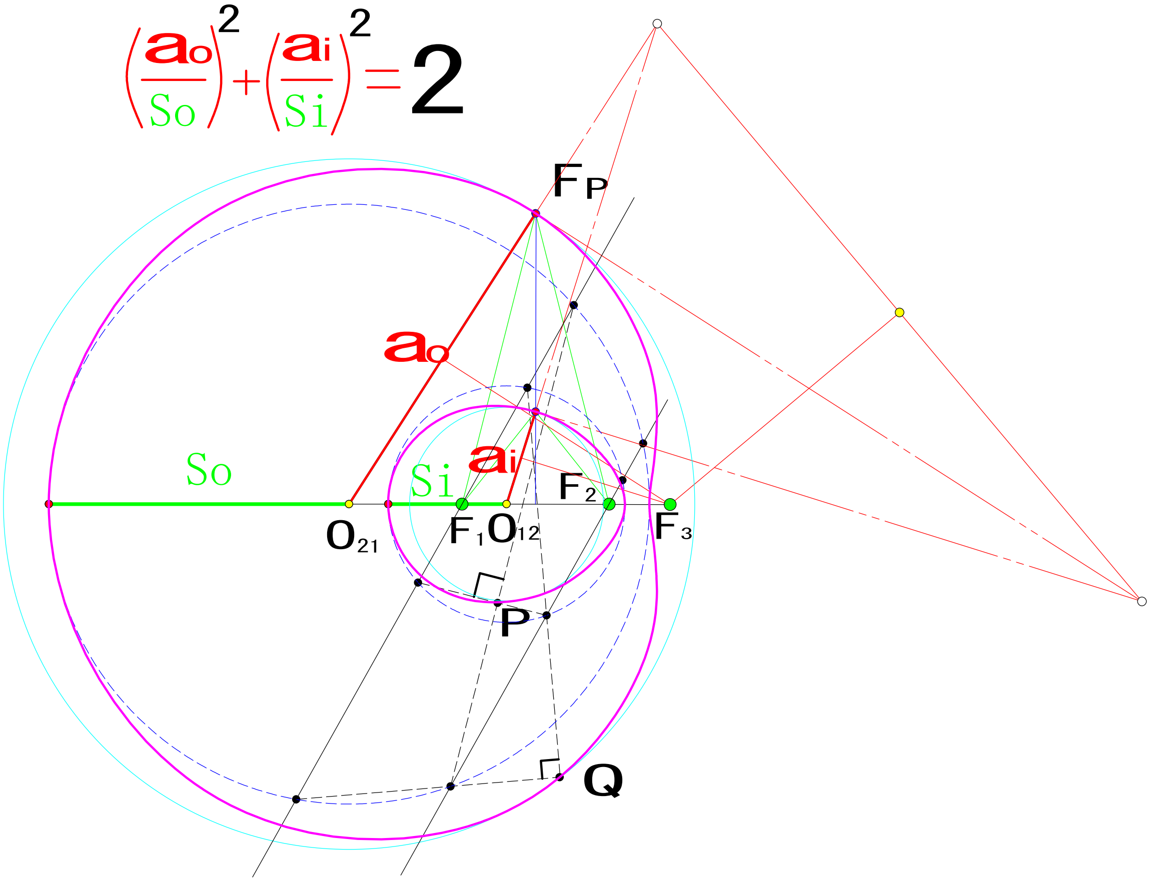
2008-7-20



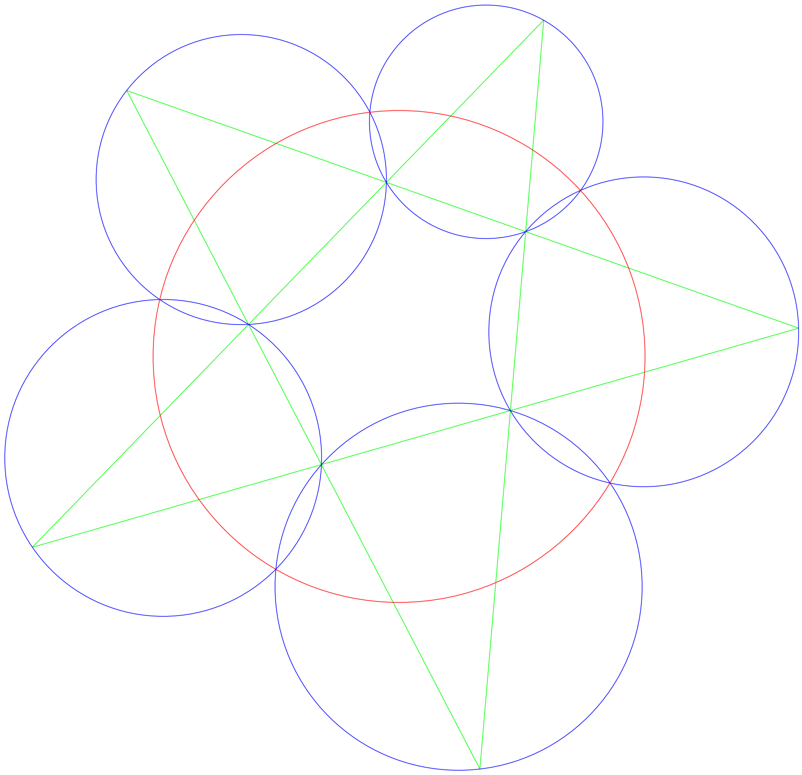
EBISUI Hirotaka

Doval不変式

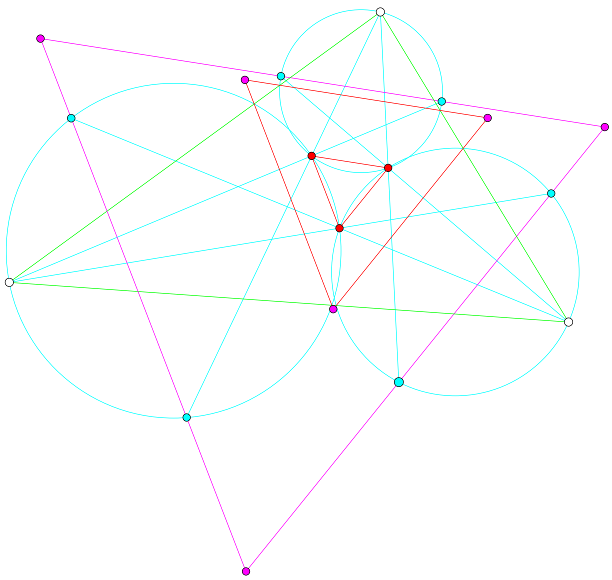
$$\left(\frac{a_o}{S_o}\right)^2+\left(\frac{a_i}{S_i}\right)^2=2$$



クリフォードの5点円



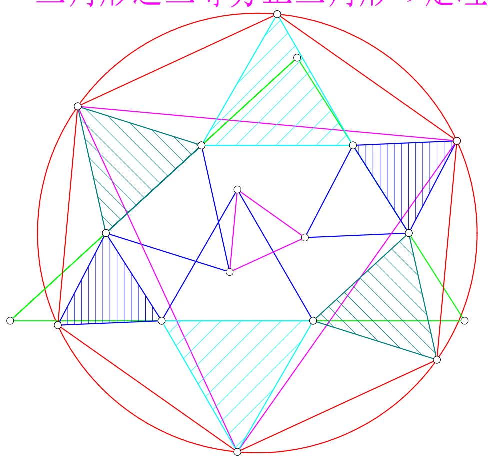
頂角3等分線の定理



EH-T001

三角形辺三等分正三角形正6角形の定理

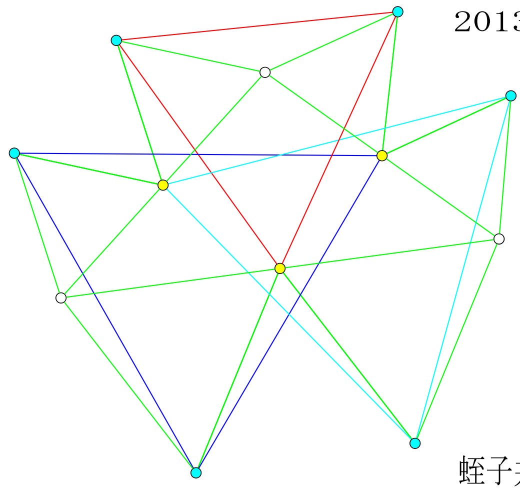
三角形辺三等分正三角形の定理



半６正三角形の3正三角形定理

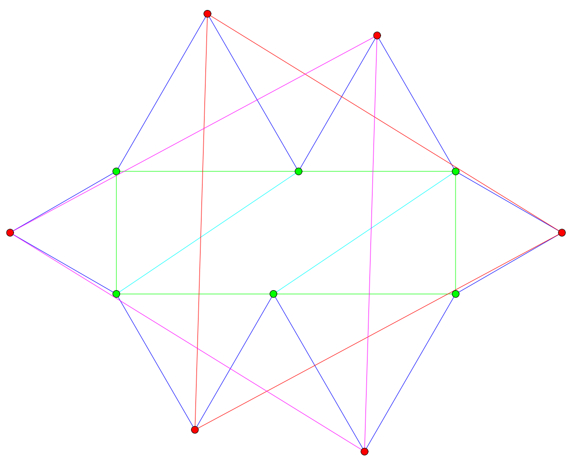
H6RS ３ RST

2013-7-6



蛭子井博孝

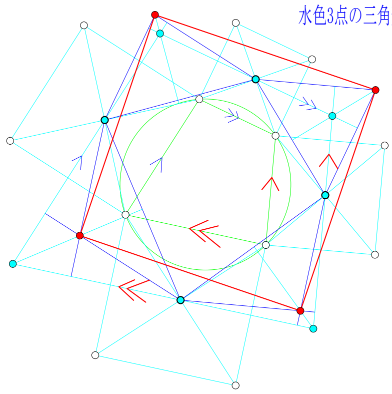
EH-T003



EH-T004

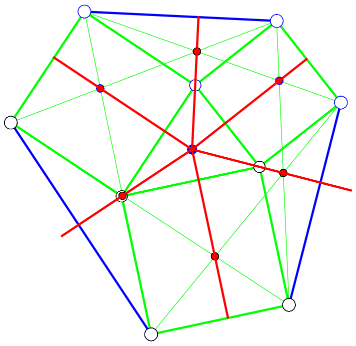
EBISUIの正方形定理

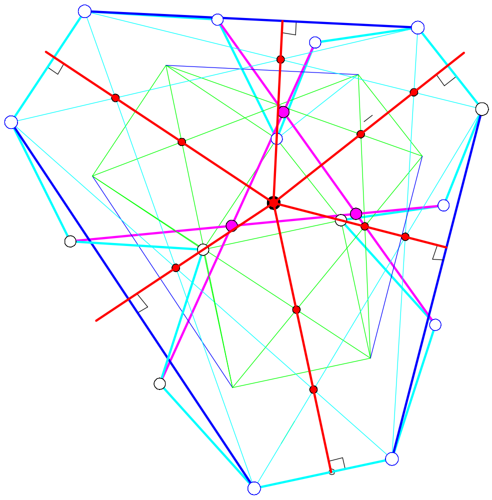
水色3点の三角形の垂心が赤点

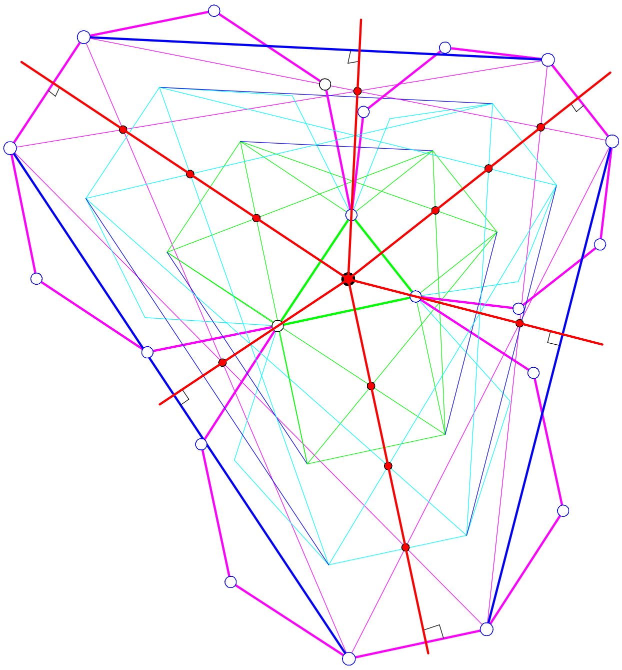


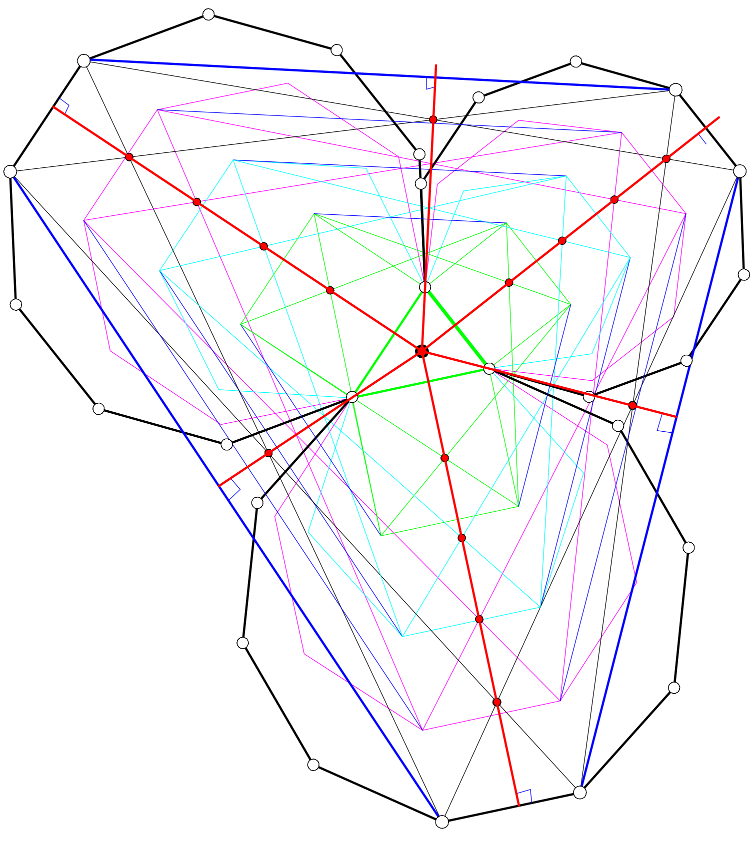
EH−T002

6垂線共点定理







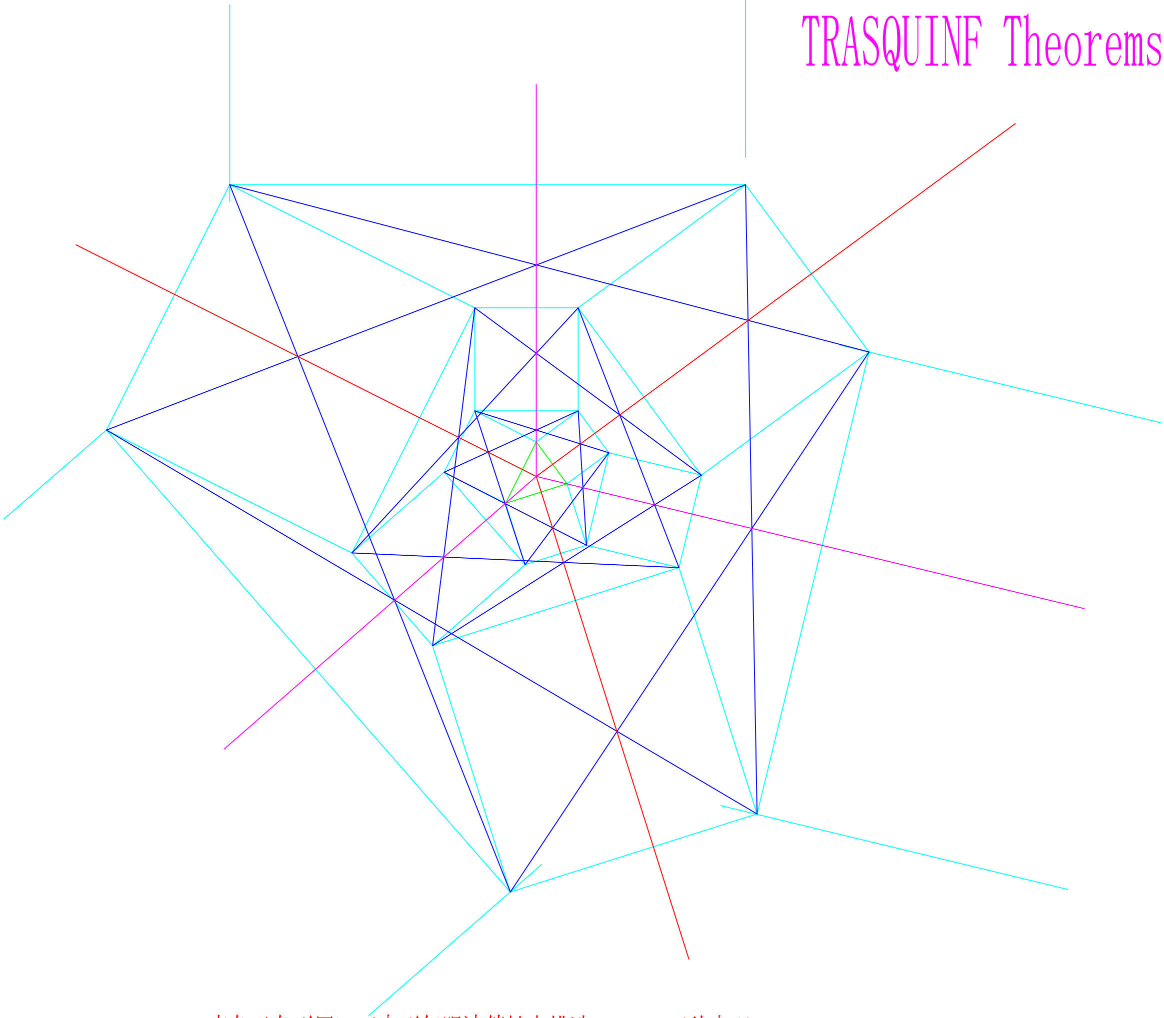


蛭子井博孝

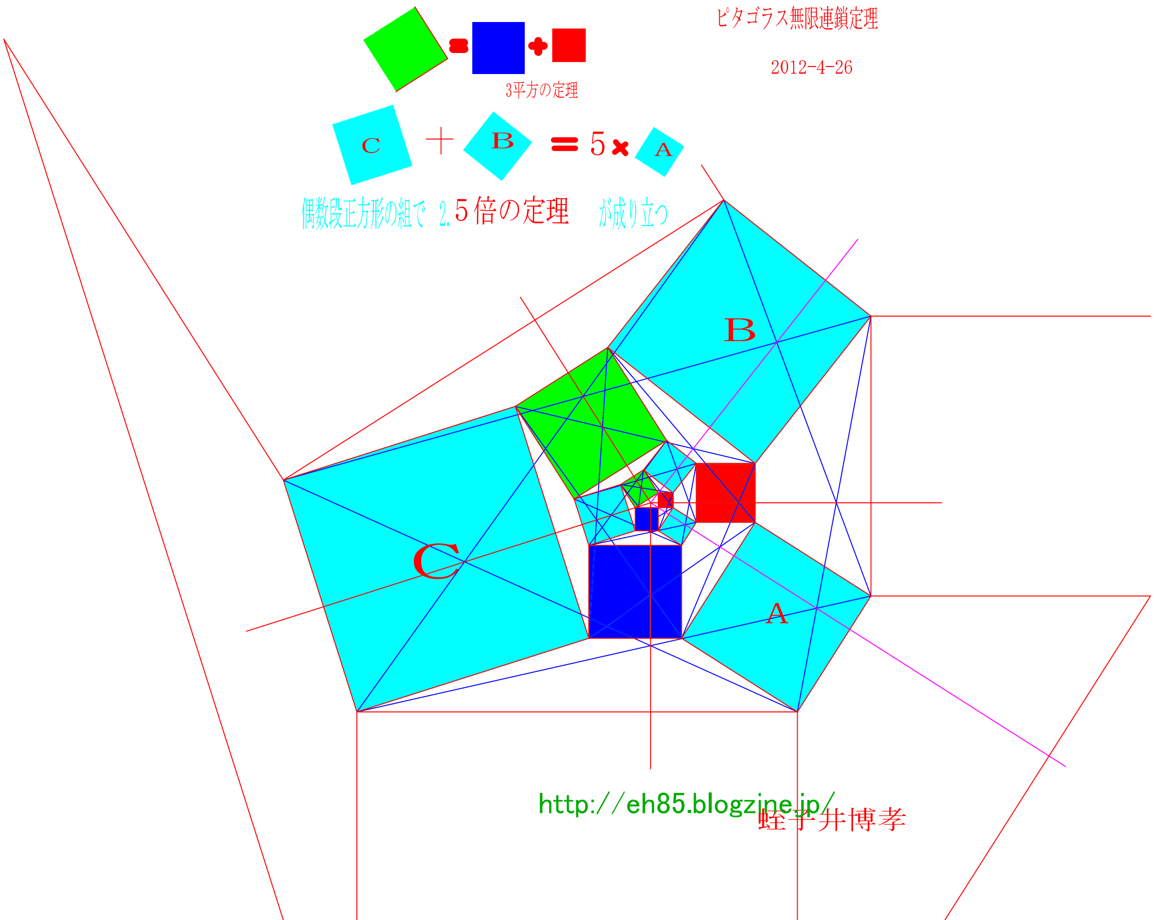
三角形の周辺正方形無限連鎖拡大構造の6垂線共点定理 初秋 初音

蛭子井博孝編著 P.27

TRASQUINF Theorems



直角三角形周辺正方形無限連鎖拡大構造の2つの面積定理



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> # $HI\text{-}NUM\ prime\ p1 + p2^2 + p3 + p4 + p5 = (p2 + 2)^2$ **by** $H.E$:

> **for** h **from** 10000000**to** 10001000 **do** $S := 0$:**for** e **from** 1 **to** 5 **do** $S := S + ithprime(h + 1 + e)$:**od**: $S := S - ithprime(h + 3) + ithprime(h + 3)^2$:**if** $\text{floor}\left(evalf\left(S^{\frac{1}{2}}\right)\right)^2 = S$ **then** $print\left(\left[seq(ithprime(h + 1 + j)[h + 1 + j], j = 1..1), [ithprime(h + 3)][(h + 3)\ thp]^2, seq(ithprime(h + 1 + j)[h + 1 + j], j = 3..5)\right] = \left[simplify\left(S^{\frac{1}{2}}\right)\right]^2\right)$ **fi**:**od**:

$[179424743_{10000005}, [179424779]^2_{10000006\ thp}, 179424787_{10000007}, 179424793_{10000008}, 179424797_{10000009}] = [179424781]^2$

$[179429531_{10000256}, [179429599]^2_{10000257\ thp}, 179429617_{10000258}, 179429623_{10000259}, 179429629_{10000260}] = [179429601]^2$

$[179429689_{10000264}, [179429729]^2_{10000265\ thp}, 179429737_{10000266}, 179429741_{10000267}, 179429753_{10000268}] = [179429731]^2$

$[179433029_{10000443}, [179433041]^2_{10000444\ thp}, 179433043_{10000445}, 179433047_{10000446}, 179433049_{10000447}] = [179433043]^2$

$[179434781_{10000540}, [179434807]^2_{10000541\ thp}, 179434811_{10000542}, 179434817_{10000543}, 179434823_{10000544}] = [179434809]^2$

$[179435189_{10000562}, [179435219]^2_{10000563\ thp}, 179435227_{10000564}, 179435231_{10000565}, 179435233_{10000566}] = [179435221]^2$

$[179440931_{10000857}, [179440973]^2_{10000858\ thp}, 179440981_{10000859}, 179440991_{10000860}, 179440993_{10000861}] = [179440975]^2$ **(1)**

> $1327 + 1361^2 + 1367 + 1373 + 1381;\ 1363^2;$

1857769

1857769 **(2)**

> $179434781 + 179434807^2 + 179434811 + 179434817 + 179434823;\ 179434809^2;$

32196850680866481

32196850680866481 **(3)**

> # $HI\text{-}NUM\ prime\ by\ H.E:$

> **for** h **from** 1 **to** 100 **do** $S := 0$:**for** e **from** 1 **to** 5 **do** $S := S + ithprime(h + e)$:**od**: $S := S - ithprime(h + 3) + ithprime(h + 3)^2$:**if** $\text{floor}\left(evalf\left(S^{\frac{1}{2}}\right)\right)^2 = S$ **then** $print\left(\left[seq(ithprime(h + j), j = 1..2), [ithprime(h + 3)][(h + 3)\ thp]^2, seq(ithprime(h + j), j = 4..5)\right] = \left[simplify\left(S^{\frac{1}{2}}\right)\right]^2\right)$ **fi**:**od**:

$[3, 5, [7]^2_{4\ thp}, 11, 13] = [9]^2$

$[17, 19, [23]^2_{9\ thp}, 29, 31] = [25]^2$

$$\left[79, 83, [89]^2_{24\ thp}, 97, 101\right] = [91]^2$$
$$\left[139, 149, [151]^2_{36\ thp}, 157, 163\right] = [153]^2$$
$$\left[157, 163, [167]^2_{39\ thp}, 173, 179\right] = [169]^2$$
$$\left[227, 229, [233]^2_{51\ thp}, 239, 241\right] = [235]^2$$
$$\left[379, 383, [389]^2_{77\ thp}, 397, 401\right] = [391]^2$$
$$\left[439, 443, [449]^2_{87\ thp}, 457, 461\right] = [451]^2$$
$$\left[479, 487, [491]^2_{94\ thp}, 499, 503\right] = [493]^2 \quad (4)$$

> $17 + 19 + 23^2 + 29 + 31;\ 25^2;$

$$625$$
$$625 \quad (5)$$

> **for** h **from** 1 **to** 1000 **do** $S := 0$:**for** e **from** 1 **to** 5 **do** $S := S + ithprime(h-1+e)$:**od**: $S := S - ithprime(h+3) + ithprime(h+3)^2$:**if** floor$\left(evalf\left(S^{\frac{1}{2}}\right)\right)^2 = S$ **then** $print\left(\left[seq(ithprime(h-1+j), j=1..3), [ithprime(h+3)][(h+3)\ thp]^2, seq(ithprime(h-1+j), j=5..5)\right] = \left[simplify\left(S^{\frac{1}{2}}\right)\right]^2\right)$ **fi**:**od**:

$$\left[1657, 1663, 1667, [1669]^2_{263\ thp}, 1693\right] = [1671]^2$$
$$\left[2957, 2963, 2969, [2971]^2_{429\ thp}, 2999\right] = [2973]^2$$
$$\left[4513, 4517, 4519, [4523]^2_{615\ thp}, 4547\right] = [4525]^2$$
$$\left[5227, 5231, 5233, [5237]^2_{697\ thp}, 5261\right] = [5239]^2$$
$$\left[5737, 5741, 5743, [5749]^2_{757\ thp}, 5779\right] = [5751]^2$$
$$\left[7741, 7753, 7757, [7759]^2_{985\ thp}, 7789\right] = [7761]^2 \quad (6)$$

> $41 + 7753 + 7757 + 7759^2 + 7789;\ 7761^2;$

$$60225421$$
$$60233121 \quad (7)$$

>

> # *HI-NUM Primes* $+p^2$ + *Primes* $= (p+e)^2$ **by** *H.EBisui* :

> $c := 0$: **for** e **from** 1 **to** 1 **do** $print(SUM\cdot[4\cdot e+1])$:**for** h **from** $2\cdot e$ **to** $2\cdot e+2$ **do** $print([P[h]^2])$: **for** pn **from** 1 **to** 1000 **do** $S := 0$: **for** g **from** 1 **to** $h-1$ **do** $S := S + ithprime(pn+g)$:**od**: $S := S + ithprime(pn+h)^2$:**for** m **from** $h+1$ **to** $4\cdot e+1$ **do** $S := S + ithprime(pn+m)$:**od**:**if** $\mathrm{floor}\left(evalf\left(S^{\frac{1}{2}}\right)\right)^2 = S$ **then** $print\left(SUM[P[Start = (pn+1)\ thprime]\cdot \{h-1\}, [h]^2, P\cdot\{4\cdot e - h+1\}]\cdot[seq(ithprime(pn+j)[j\ th], j = 1..(h-1)), \{ithprime(pn+h)\}[(pn+1+\{h\})\ thp]^2, seq(ithprime(pn+j)[j\ th], j=(h+1)..(4\cdot e+1))] = \left[simplify\left(S^{\frac{1}{2}}\right)\right]^2\right)$: $print\left(\left[simplify\left(S^{\frac{1}{2}}\right)\right] - \{ithprime(pn+h)\} = simplify\left(S^{\frac{1}{2}}\right) - ithprime(pn+h)\right)$ **fi**:**od**:**od**:**od**:

$$SUM[5]$$

$$[P_2^2]$$

$$SUM_{P_{Start=217\ thprime}\{1\},[2]^2,P\{3\}}[1327_{th}, \{1361\}^2_{(217+\{2\})\ thp}, 1367_{3\ th}, 1373_{4\ th}, 1381_{5\ th}] = [1363]^2$$

$$[1363] - \{1361\} = 2$$

$$SUM_{P_{Start=312\ thprime}\{1\},[2]^2,P\{3\}}[2069_{th}, \{2081\}^2_{(312+\{2\})\ thp}, 2083_{3\ th}, 2087_{4\ th}, 2089_{5\ th}] = [2083]^2$$

$$[2083] - \{2081\} = 2$$

$$SUM_{P_{Start=566\ thprime}\{1\},[2]^2,P\{3\}}[4111_{th}, \{4127\}^2_{(566+\{2\})\ thp}, 4129_{3\ th}, 4133_{4\ th}, 4139_{5\ th}] = [4129]^2$$

$$[4129] - \{4127\} = 2$$

$$SUM_{P_{Start=624\ thprime}\{1\},[2]^2,P\{3\}}[4621_{th}, \{4637\}^2_{(624+\{2\})\ thp}, 4639_{3\ th}, 4643_{4\ th}, 4649_{5\ th}] = [4639]^2$$

$$[4639] - \{4637\} = 2$$

$$SUM_{P_{Start=635\ thprime}\{1\},[2]^2,P\{3\}}[4703_{th}, \{4721\}^2_{(635+\{2\})\ thp}, 4723_{3\ th}, 4729_{4\ th}, 4733_{5\ th}] = [4723]^2$$

$$[4723] - \{4721\} = 2$$

$$SUM_{P_{Start=721\ thprime}\{1\},[2]^2,P\{3\}}[5449_{th}, \{5471\}^2_{(721+\{2\})\ thp}, 5477_{3\ th}, 5479_{4\ th}, 5483_{5\ th}] = [5473]^2$$

$$[5473] - \{5471\} = 2$$

$$[P_3^2]$$

$$SUM_{P_{Start=2\ thprime}\{2\},[3]^2,P\{2\}}[3_{th}, 5_{2\ th}, \{7\}^2_{(2+\{3\})\ thp}, 11_{4\ th}, 13_{5\ th}] = [9]^2$$

$$[9] - \{7\} = 2$$

$$SUM_{P_{Start=7\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[17_{th},\,19_{2\,th},\,\{23\}^2_{(7+\{3\})\ thp},\,29_{4\,th},\,31_{5\,th}\right]=[25]^2$$

$$[25]-\{23\}=2$$

$$SUM_{P_{Start=22\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[79_{th},\,83_{2\,th},\,\{89\}^2_{(22+\{3\})\ thp},\,97_{4\,th},\,101_{5\,th}\right]=[91]^2$$

$$[91]-\{89\}=2$$

$$SUM_{P_{Start=34\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[139_{th},\,149_{2\,th},\,\{151\}^2_{(34+\{3\})\ thp},\,157_{4\,th},\,163_{5\,th}\right]=[153]^2$$

$$[153]-\{151\}=2$$

$$SUM_{P_{Start=37\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[157_{th},\,163_{2\,th},\,\{167\}^2_{(37+\{3\})\ thp},\,173_{4\,th},\,179_{5\,th}\right]=[169]^2$$

$$[169]-\{167\}=2$$

$$SUM_{P_{Start=49\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[227_{th},\,229_{2\,th},\,\{233\}^2_{(49+\{3\})\ thp},\,239_{4\,th},\,241_{5\,th}\right]=[235]^2$$

$$[235]-\{233\}=2$$

$$SUM_{P_{Start=75\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[379_{th},\,383_{2\,th},\,\{389\}^2_{(75+\{3\})\ thp},\,397_{4\,th},\,401_{5\,th}\right]=[391]^2$$

$$[391]-\{389\}=2$$

$$SUM_{P_{Start=85\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[439_{th},\,443_{2\,th},\,\{449\}^2_{(85+\{3\})\ thp},\,457_{4\,th},\,461_{5\,th}\right]=[451]^2$$

$$[451]-\{449\}=2$$

$$SUM_{P_{Start=92\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[479_{th},\,487_{2\,th},\,\{491\}^2_{(92+\{3\})\ thp},\,499_{4\,th},\,503_{5\,th}\right]=[493]^2$$

$$[493]-\{491\}=2$$

$$SUM_{P_{Start=142\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[821_{th},\,823_{2\,th},\,\{827\}^2_{(142+\{3\})\ thp},\,829_{4\,th},\,839_{5\,th}\right]$$
$$=[829]^2$$

$$[829]-\{827\}=2$$

$$SUM_{P_{Start=163\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[967_{th},\,971_{2\,th},\,\{977\}^2_{(163+\{3\})\ thp},\,983_{4\,th},\,991_{5\,th}\right]$$
$$=[979]^2$$

$$[979]-\{977\}=2$$

$$SUM_{P_{Start=164\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[971_{th},\,977_{2\,th},\,\{983\}^2_{(164+\{3\})\ thp},\,991_{4\,th},\,997_{5\,th}\right]$$
$$=[985]^2$$

$$[985]-\{983\}=2$$

$$SUM_{P_{Start=183\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[1093_{th},\,1097_{2\,th},\,\{1103\}^2_{(183+\{3\})\ thp},\,1109_{4\,th},\,1117_{5\,th}\right]$$
$$=[1105]^2$$

$$[1105]-\{1103\}=2$$

$$SUM_{P_{Start=184\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[1097_{th},\,1103_{2\,th},\,\{1109\}^2_{(184+\{3\})\ thp},\,1117_{4\,th},\,1123_{5\,th}\right]$$
$$=[1111]^2$$

$$[1111]-\{1109\}=2$$

$SUM_{P_{Start=190\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1151_{th},1153_{2\,th},\{1163\}^2_{(190+\{3\})\ thp},1171_{4\,th},1181_{5\,th}\right]$
$=[1165]^2$

$$[1165]-\{1163\}=2$$

$SUM_{P_{Start=206\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1277_{th},1279_{2\,th},\{1283\}^2_{(206+\{3\})\ thp},1289_{4\,th},1291_{5\,th}\right]$
$=[1285]^2$

$$[1285]-\{1283\}=2$$

$SUM_{P_{Start=226\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1429_{th},1433_{2\,th},\{1439\}^2_{(226+\{3\})\ thp},1447_{4\,th},1451_{5\,th}\right]$
$=[1441]^2$

$$[1441]-\{1439\}=2$$

$SUM_{P_{Start=244\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1549_{th},1553_{2\,th},\{1559\}^2_{(244+\{3\})\ thp},1567_{4\,th},1571_{5\,th}\right]$
$=[1561]^2$

$$[1561]-\{1559\}=2$$

$SUM_{P_{Start=246\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1559_{th},1567_{2\,th},\{1571\}^2_{(246+\{3\})\ thp},1579_{4\,th},1583_{5\,th}\right]$
$=[1573]^2$

$$[1573]-\{1571\}=2$$

$SUM_{P_{Start=252\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1601_{th},1607_{2\,th},\{1609\}^2_{(252+\{3\})\ thp},1613_{4\,th},1619_{5\,th}\right]$
$=[1611]^2$

$$[1611]-\{1609\}=2$$

$SUM_{P_{Start=253\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1607_{th},1609_{2\,th},\{1613\}^2_{(253+\{3\})\ thp},1619_{4\,th},1621_{5\,th}\right]$
$=[1615]^2$

$$[1615]-\{1613\}=2$$

$SUM_{P_{Start=265\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1697_{th},1699_{2\,th},\{1709\}^2_{(265+\{3\})\ thp},1721_{4\,th},1723_{5\,th}\right]$
$=[1711]^2$

$$[1711]-\{1709\}=2$$

$SUM_{P_{Start=286\ thprime}}{\{2\},[3]^2,P\{2\}}\left[1871_{th},1873_{2\,th},\{1877\}^2_{(286+\{3\})\ thp},1879_{4\,th},1889_{5\,th}\right]$
$=[1879]^2$

$$[1879]-\{1877\}=2$$

$SUM_{P_{Start=310\ thprime}}{\{2\},[3]^2,P\{2\}}\left[2053_{th},2063_{2\,th},\{2069\}^2_{(310+\{3\})\ thp},2081_{4\,th},2083_{5\,th}\right]$
$=[2071]^2$

$$[2071]-\{2069\}=2$$

$SUM_{P_{Start=313\ thprime}}{\{2\},[3]^2,P\{2\}}\left[2081_{th},2083_{2\,th},\{2087\}^2_{(313+\{3\})\ thp},2089_{4\,th},2099_{5\,th}\right]$
$=[2089]^2$

$$[2089]-\{2087\}=2$$

$$SUM_{P_{Start=315\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[2087_{th},\,2089_{2\,th},\,\{2099\}^2_{(315+\{3\})\,thp},\,2111_{4\,th},\,2113_{5\,th}\right]=[2101]^2$$

$$[2101]-\{2099\}=2$$

$$SUM_{P_{Start=391\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[2689_{th},\,2693_{2\,th},\,\{2699\}^2_{(391+\{3\})\,thp},\,2707_{4\,th},\,2711_{5\,th}\right]=[2701]^2$$

$$[2701]-\{2699\}=2$$

$$SUM_{P_{Start=437\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[3049_{th},\,3061_{2\,th},\,\{3067\}^2_{(437+\{3\})\,thp},\,3079_{4\,th},\,3083_{5\,th}\right]=[3069]^2$$

$$[3069]-\{3067\}=2$$

$$SUM_{P_{Start=463\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[3299_{th},\,3301_{2\,th},\,\{3307\}^2_{(463+\{3\})\,thp},\,3313_{4\,th},\,3319_{5\,th}\right]=[3309]^2$$

$$[3309]-\{3307\}=2$$

$$SUM_{P_{Start=492\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[3527_{th},\,3529_{2\,th},\,\{3533\}^2_{(492+\{3\})\,thp},\,3539_{4\,th},\,3541_{5\,th}\right]=[3535]^2$$

$$[3535]-\{3533\}=2$$

$$SUM_{P_{Start=541\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[3911_{th},\,3917_{2\,th},\,\{3919\}^2_{(541+\{3\})\,thp},\,3923_{4\,th},\,3929_{5\,th}\right]=[3921]^2$$

$$[3921]-\{3919\}=2$$

$$SUM_{P_{Start=542\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[3917_{th},\,3919_{2\,th},\,\{3923\}^2_{(542+\{3\})\,thp},\,3929_{4\,th},\,3931_{5\,th}\right]=[3925]^2$$

$$[3925]-\{3923\}=2$$

$$SUM_{P_{Start=564\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[4093_{th},\,4099_{2\,th},\,\{4111\}^2_{(564+\{3\})\,thp},\,4127_{4\,th},\,4129_{5\,th}\right]=[4113]^2$$

$$[4113]-\{4111\}=2$$

$$SUM_{P_{Start=603\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[4441_{th},\,4447_{2\,th},\,\{4451\}^2_{(603+\{3\})\,thp},\,4457_{4\,th},\,4463_{5\,th}\right]=[4453]^2$$

$$[4453]-\{4451\}=2$$

$$SUM_{P_{Start=625\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[4637_{th},\,4639_{2\,th},\,\{4643\}^2_{(625+\{3\})\,thp},\,4649_{4\,th},\,4651_{5\,th}\right]=[4645]^2$$

$$[4645]-\{4643\}=2$$

$$SUM_{P_{Start=643\ thprime}}^{\{2\},\,[3]^2,\,P\{2\}}\left[4787_{th},\,4789_{2\,th},\,\{4793\}^2_{(643+\{3\})\,thp},\,4799_{4\,th},\,4801_{5\,th}\right]$$

$= [4795]^2$

$$[4795] - \{4793\} = 2$$

$SUM_{P_{Start=652\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[4871_{th},\ 4877_{2\ th},\ \{4889\}^2_{(652+\{3\})\ thp},\ 4903_{4\ th},\ 4909_{5\ th}\right]$

$= [4891]^2$

$$[4891] - \{4889\} = 2$$

$SUM_{P_{Start=681\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[5099_{th},\ 5101_{2\ th},\ \{5107\}^2_{(681+\{3\})\ thp},\ 5113_{4\ th},\ 5119_{5\ th}\right]$

$= [5109]^2$

$$[5109] - \{5107\} = 2$$

$SUM_{P_{Start=687\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[5153_{th},\ 5167_{2\ th},\ \{5171\}^2_{(687+\{3\})\ thp},\ 5179_{4\ th},\ 5189_{5\ th}\right]$

$= [5173]^2$

$$[5173] - \{5171\} = 2$$

$SUM_{P_{Start=710\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[5387_{th},\ 5393_{2\ th},\ \{5399\}^2_{(710+\{3\})\ thp},\ 5407_{4\ th},\ 5413_{5\ th}\right]$

$= [5401]^2$

$$[5401] - \{5399\} = 2$$

$SUM_{P_{Start=743\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[5651_{th},\ 5653_{2\ th},\ \{5657\}^2_{(743+\{3\})\ thp},\ 5659_{4\ th},\ 5669_{5\ th}\right]$

$= [5659]^2$

$$[5659] - \{5657\} = 2$$

$SUM_{P_{Start=750\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[5693_{th},\ 5701_{2\ th},\ \{5711\}^2_{(750+\{3\})\ thp},\ 5717_{4\ th},\ 5737_{5\ th}\right]$

$= [5713]^2$

$$[5713] - \{5711\} = 2$$

$SUM_{P_{Start=761\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[5801_{th},\ 5807_{2\ th},\ \{5813\}^2_{(761+\{3\})\ thp},\ 5821_{4\ th},\ 5827_{5\ th}\right]$

$= [5815]^2$

$$[5815] - \{5813\} = 2$$

$SUM_{P_{Start=781\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[5953_{th},\ 5981_{2\ th},\ \{5987\}^2_{(781+\{3\})\ thp},\ 6007_{4\ th},\ 6011_{5\ th}\right]$

$= [5989]^2$

$$[5989] - \{5987\} = 2$$

$SUM_{P_{Start=791\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[6067_{th},\ 6073_{2\ th},\ \{6079\}^2_{(791+\{3\})\ thp},\ 6089_{4\ th},\ 6091_{5\ th}\right]$

$= [6081]^2$

$$[6081] - \{6079\} = 2$$

$SUM_{P_{Start=822\ thprime}}{}_{\{2\},\ [3]^2,\ P\{2\}}\left[6317_{th},\ 6323_{2\ th},\ \{6329\}^2_{(822+\{3\})\ thp},\ 6337_{4\ th},\ 6343_{5\ th}\right]$

$= [6331]^2$

$$[6331] - \{6329\} = 2$$

$SUM_{P_{Start=828\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[6359_{th},\,6361_{2\,th},\,\{6367\}^2_{(828+\{3\})\,thp},\,6373_{4\,th},\,6379_{5\,th}\right]$

$=[6369]^2$

$$[6369]-\{6367\}=2$$

$SUM_{P_{Start=829\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[6361_{th},\,6367_{2\,th},\,\{6373\}^2_{(829+\{3\})\,thp},\,6379_{4\,th},\,6389_{5\,th}\right]$

$=[6375]^2$

$$[6375]-\{6373\}=2$$

$SUM_{P_{Start=894\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[6961_{th},\,6967_{2\,th},\,\{6971\}^2_{(894+\{3\})\,thp},\,6977_{4\,th},\,6983_{5\,th}\right]$

$=[6973]^2$

$$[6973]-\{6971\}=2$$

$SUM_{P_{Start=895\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[6967_{th},\,6971_{2\,th},\,\{6977\}^2_{(895+\{3\})\,thp},\,6983_{4\,th},\,6991_{5\,th}\right]$

$=[6979]^2$

$$[6979]-\{6977\}=2$$

$SUM_{P_{Start=896\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[6971_{th},\,6977_{2\,th},\,\{6983\}^2_{(896+\{3\})\,thp},\,6991_{4\,th},\,6997_{5\,th}\right]$

$=[6985]^2$

$$[6985]-\{6983\}=2$$

$SUM_{P_{Start=901\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[7001_{th},\,7013_{2\,th},\,\{7019\}^2_{(901+\{3\})\,thp},\,7027_{4\,th},\,7039_{5\,th}\right]$

$=[7021]^2$

$$[7021]-\{7019\}=2$$

$SUM_{P_{Start=940\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[7411_{th},\,7417_{2\,th},\,\{7433\}^2_{(940+\{3\})\,thp},\,7451_{4\,th},\,7457_{5\,th}\right]$

$=[7435]^2$

$$[7435]-\{7433\}=2$$

$SUM_{P_{Start=948\ thprime}}{}_{\{2\},\,[3]^2,\,P\{2\}}\left[7487_{th},\,7489_{2\,th},\,\{7499\}^2_{(948+\{3\})\,thp},\,7507_{4\,th},\,7517_{5\,th}\right]$

$=[7501]^2$

$$[7501]-\{7499\}=2$$

$$\left[P_4^2\right]$$

$SUM_{P_{Start=260\ thprime}}{}_{\{3\},\,[4]^2,\,P\{1\}}\left[1657_{th},\,1663_{2\,th},\,1667_{3\,th},\,\{1669\}^2_{(260+\{4\})\,thp},\,1693_{5\,th}\right]$

$=[1671]^2$

$$[1671]-\{1669\}=2$$

$SUM_{P_{Start=426\ thprime}}{}_{\{3\},\,[4]^2,\,P\{1\}}\left[2957_{th},\,2963_{2\,th},\,2969_{3\,th},\,\{2971\}^2_{(426+\{4\})\,thp},\,2999_{5\,th}\right]$

$=[2973]^2$

$$[2973]-\{2971\}=2$$

$SUM_{P_{Start=612\ thprime}}{}_{\{3\},\,[4]^2,\,P\{1\}}\left[4513_{th},\,4517_{2\,th},\,4519_{3\,th},\,\{4523\}^2_{(612+\{4\})\,thp},\,4547_{5\,th}\right]$

$= [4525]^2$

$$[4525] - \{4523\} = 2$$

$SUM_{P_{Start = 694\,thprime}}{}^{\{3\},\,[4]^2,\,P\{1\}}\left[5227_{th}, 5231_{2\,th}, 5233_{3\,th}, \{5237\}^2_{(694 + \{4\})\,thp}, 5261_{5\,th}\right]$

$= [5239]^2$

$$[5239] - \{5237\} = 2$$

$SUM_{P_{Start = 754\,thprime}}{}^{\{3\},\,[4]^2,\,P\{1\}}\left[5737_{th}, 5741_{2\,th}, 5743_{3\,th}, \{5749\}^2_{(754 + \{4\})\,thp}, 5779_{5\,th}\right]$

$= [5751]^2$

$$[5751] - \{5749\} = 2$$

$SUM_{P_{Start = 982\,thprime}}{}^{\{3\},\,[4]^2,\,P\{1\}}\left[7741_{th}, 7753_{2\,th}, 7757_{3\,th}, \{7759\}^2_{(982 + \{4\})\,thp}, 7789_{5\,th}\right]$

$= [7761]^2$

$$[7761] - \{7759\} = 2 \qquad \textbf{(1)}$$

>

> # HI-NUM Primes $+p^2$ + Primes $= (p+e)^2$ **by** H.EBisui :

> $c := 0$: **for** e **from** 15 **to** 15 **do** $print(SUM \cdot [4 \cdot e + 1])$:**for** h **from** $2 \cdot e$ **to** $2 \cdot e + 2$ **do** $print([P[h]^2])$: **for** pn **from** 1 **to** 10000 **do** $S := 0$: **for** g **from** 1 **to** $h-1$ **do** $S := S + ithprime(pn+g)$:**od**: $S := S + ithprime(pn+h)^2$:**for** m **from** $h+1$ **to** $4 \cdot e + 1$ **do** $S := S + ithprime(pn+m)$:**od**:**if** $\mathrm{floor}\left(evalf\left(S^{\frac{1}{2}}\right)\right)^2 = S$ **then** $print\left(SUM\left[P[Start = (pn+1)\ thprime] \cdot \{h-1\}, [h]^2, P \cdot \{4 \cdot e - h + 1\}\right] \cdot [seq(ithprime(pn+j)[j\ th], j = 1..(h-1)), \{ithprime(pn+h)\}[(pn+1+\{h\})\ thp]^2, seq(ithprime(pn+j)[j\ th], j = (h+1)..(4 \cdot e+1))] = \left[simplify\left(S^{\frac{1}{2}}\right)\right]^2\right)$: $print\left(\left[simplify\left(S^{\frac{1}{2}}\right)\right] - \{ithprime(pn+h)\} = simplify\left(S^{\frac{1}{2}}\right) - ithprime(pn+h)\right)$ **fi**:**od**:**od**:**od**:

$$SUM[61]$$

$$[P_{30}^2]$$

$SUM_{P_{Start = 443\ thprime}\{29\}, [30]^2, P\{31\}}$ $[3109_{th}, 3119_{2\ th}, 3121_{3\ th}, 3137_{4\ th}, 3163_{5\ th}, 3167_{6\ th}, 3169_{7\ th}, 3181_{8\ th}, 3187_{9\ th}, 3191_{10\ th}, 3203_{11\ th}, 3209_{12\ th}, 3217_{13\ th}, 3221_{14\ th}, 3229_{15\ th}, 3251_{16\ th}, 3253_{17\ th}, 3257_{18\ th}, 3259_{19\ th}, 3271_{20\ th}, 3299_{21\ th}, 3301_{22\ th}, 3307_{23\ th}, 3313_{24\ th}, 3319_{25\ th}, 3323_{26\ th}, 3329_{27\ th}, 3331_{28\ th}, 3343_{29\ th}, \{3347\}^2_{(443 + \{30\})\ thp}, 3359_{31\ th}, 3361_{32\ th}, 3371_{33\ th}, 3373_{34\ th}, 3389_{35\ th}, 3391_{36\ th}, 3407_{37\ th}, 3413_{38\ th}, 3433_{39\ th}, 3449_{40\ th}, 3457_{41\ th}, 3461_{42\ th}, 3463_{43\ th}, 3467_{44\ th}, 3469_{45\ th}, 3491_{46\ th}, 3499_{47\ th}, 3511_{48\ th}, 3517_{49\ th}, 3527_{50\ th}, 3529_{51\ th}, 3533_{52\ th}, 3539_{53\ th}, 3541_{54\ th}, 3547_{55\ th}, 3557_{56\ th}, 3559_{57\ th}, 3571_{58\ th}, 3581_{59\ th}, 3583_{60\ th}, 3593_{61\ th}] = [3377]^2$

$$[3377] - \{3347\} = 30$$

$SUM_{P_{Start = 3394\ thprime}\{29\}, [30]^2, P\{31\}}$ $[31541_{th}, 31543_{2\ th}, 31547_{3\ th}, 31567_{4\ th}, 31573_{5\ th}, 31583_{6\ th}, 31601_{7\ th}, 31607_{8\ th}, 31627_{9\ th}, 31643_{10\ th}, 31649_{11\ th}, 31657_{12\ th}, 31663_{13\ th}, 31667_{14\ th}, 31687_{15\ th}, 31699_{16\ th}, 31721_{17\ th}, 31723_{18\ th}, 31727_{19\ th}, 31729_{20\ th}, 31741_{21\ th}, 31751_{22\ th}, 31769_{23\ th}, 31771_{24\ th}, 31793_{25\ th}, 31799_{26\ th}, 31817_{27\ th}, 31847_{28\ th}, 31849_{29\ th}, \{31859\}^2_{(3394 + \{30\})\ thp}, 31873_{31\ th}, 31883_{32\ th}, 31891_{33\ th}, 31907_{34\ th}, 31957_{35\ th}, 31963_{36\ th}, 31973_{37\ th}, 31981_{38\ th}, 31991_{39\ th}, 32003_{40\ th}, 32009_{41\ th}, 32027_{42\ th}, 32029_{43\ th}, 32051_{44\ th}, 32057_{45\ th}, 32059_{46\ th}, 32063_{47\ th}, 32069_{48\ th}, 32077_{49\ th}, 32083_{50\ th}, 32089_{51\ th}, 32099_{52\ th}, 32117_{53\ th}, 32119_{54\ th}, 32141_{55\ th}, 32143_{56\ th}, 32159_{57\ th}, 32173_{58\ th}, 32183_{59\ th}, 32189_{60\ th}, 32191_{61\ th}] = [31889]^2$

$$[31889] - \{31859\} = 30$$

$SUM_{P_{Start=4068\ thprime}}{}_{\{29\},\ [30]^2,\ P\{31\}}$ $[38611_{th}, 38629_{2\ th}, 38639_{3\ th}, 38651_{4\ th}, 38653_{5\ th}, 38669_{6\ th}, 38671_{7\ th}, 38677_{8\ th}, 38693_{9\ th}, 38699_{10\ th}, 38707_{11\ th}, 38711_{12\ th}, 38713_{13\ th}, 38723_{14\ th}, 38729_{15\ th}, 38737_{16\ th}, 38747_{17\ th}, 38749_{18\ th}, 38767_{19\ th}, 38783_{20\ th}, 38791_{21\ th}, 38803_{22\ th}, 38821_{23\ th}, 38833_{24\ th}, 38839_{25\ th}, 38851_{26\ th}, 38861_{27\ th}, 38867_{28\ th}, 38873_{29\ th}, \{38891\}^2_{(4068\ +\ \{30\})\ thp}, 38903_{31\ th}, 38917_{32\ th}, 38921_{33\ th}, 38923_{34\ th}, 38933_{35\ th}, 38953_{36\ th}, 38959_{37\ th}, 38971_{38\ th}, 38977_{39\ th}, 38993_{40\ th}, 39019_{41\ th}, 39023_{42\ th}, 39041_{43\ th}, 39043_{44\ th}, 39047_{45\ th}, 39079_{46\ th}, 39089_{47\ th}, 39097_{48\ th}, 39103_{49\ th}, 39107_{50\ th}, 39113_{51\ th}, 39119_{52\ th}, 39133_{53\ th}, 39139_{54\ th}, 39157_{55\ th}, 39161_{56\ th}, 39163_{57\ th}, 39181_{58\ th}, 39191_{59\ th}, 39199_{60\ th}, 39209_{61\ th}]$

$= [38921]^2$

$$[38921] - \{38891\} = 30$$

$SUM_{P_{Start=4370\ thprime}}{}_{\{29\},\ [30]^2,\ P\{31\}}$ $[41801_{th}, 41809_{2\ th}, 41813_{3\ th}, 41843_{4\ th}, 41849_{5\ th}, 41851_{6\ th}, 41863_{7\ th}, 41879_{8\ th}, 41887_{9\ th}, 41893_{10\ th}, 41897_{11\ th}, 41903_{12\ th}, 41911_{13\ th}, 41927_{14\ th}, 41941_{15\ th}, 41947_{16\ th}, 41953_{17\ th}, 41957_{18\ th}, 41959_{19\ th}, 41969_{20\ th}, 41981_{21\ th}, 41983_{22\ th}, 41999_{23\ th}, 42013_{24\ th}, 42017_{25\ th}, 42019_{26\ th}, 42023_{27\ th}, 42043_{28\ th}, 42061_{29\ th}, \{42071\}^2_{(4370\ +\ \{30\})\ thp}, 42073_{31\ th}, 42083_{32\ th}, 42089_{33\ th}, 42101_{34\ th}, 42131_{35\ th}, 42139_{36\ th}, 42157_{37\ th}, 42169_{38\ th}, 42179_{39\ th}, 42181_{40\ th}, 42187_{41\ th}, 42193_{42\ th}, 42197_{43\ th}, 42209_{44\ th}, 42221_{45\ th}, 42223_{46\ th}, 42227_{47\ th}, 42239_{48\ th}, 42257_{49\ th}, 42281_{50\ th}, 42283_{51\ th}, 42293_{52\ th}, 42299_{53\ th}, 42307_{54\ th}, 42323_{55\ th}, 42331_{56\ th}, 42337_{57\ th}, 42349_{58\ th}, 42359_{59\ th}, 42373_{60\ th}, 42379_{61\ th}]$

$= [42101]^2$

$$[42101] - \{42071\} = 30$$

$SUM_{P_{Start=4634\ thprime}}{}_{\{29\},\ [30]^2,\ P\{31\}}$ $[44579_{th}, 44587_{2\ th}, 44617_{3\ th}, 44621_{4\ th}, 44623_{5\ th}, 44633_{6\ th}, 44641_{7\ th}, 44647_{8\ th}, 44651_{9\ th}, 44657_{10\ th}, 44683_{11\ th}, 44687_{12\ th}, 44699_{13\ th}, 44701_{14\ th}, 44711_{15\ th}, 44729_{16\ th}, 44741_{17\ th}, 44753_{18\ th}, 44771_{19\ th}, 44773_{20\ th}, 44777_{21\ th}, 44789_{22\ th}, 44797_{23\ th}, 44809_{24\ th}, 44819_{25\ th}, 44839_{26\ th}, 44843_{27\ th}, 44851_{28\ th}, 44867_{29\ th}, \{44879\}^2_{(4634\ +\ \{30\})\ thp}, 44887_{31\ th}, 44893_{32\ th}, 44909_{33\ th}, 44917_{34\ th}, 44927_{35\ th}, 44939_{36\ th}, 44953_{37\ th}, 44959_{38\ th}, 44963_{39\ th}, 44971_{40\ th}, 44983_{41\ th}, 44987_{42\ th}, 45007_{43\ th}, 45013_{44\ th}, 45053_{45\ th}, 45061_{46\ th}, 45077_{47\ th}, 45083_{48\ th}, 45119_{49\ th}, 45121_{50\ th}, 45127_{51\ th}, 45131_{52\ th}, 45137_{53\ th}, 45139_{54\ th}, 45161_{55\ th}, 45179_{56\ th}, 45181_{57\ th}, 45191_{58\ th}, 45197_{59\ th}, 45233_{60\ th}, 45247_{61\ th}]$

$= [44909]^2$

$$[44909] - \{44879\} = 30$$

$SUM_{P_{Start = 7245\ thprime}}{}^{\{29\},\ [30]^2,\ P\{31\}}$ $[73361_{th}, 73363_{2\,th}, 73369_{3\,th}, 73379_{4\,th}, 73387_{5\,th},$
$73417_{6\,th}, 73421_{7\,th}, 73433_{8\,th}, 73453_{9\,th}, 73459_{10\,th}, 73471_{11\,th}, 73477_{12\,th}, 73483_{13\,th},$
$73517_{14\,th}, 73523_{15\,th}, 73529_{16\,th}, 73547_{17\,th}, 73553_{18\,th}, 73561_{19\,th}, 73571_{20\,th},$
$73583_{21\,th}, 73589_{22\,th}, 73597_{23\,th}, 73607_{24\,th}, 73609_{25\,th}, 73613_{26\,th}, 73637_{27\,th},$
$73643_{28\,th}, 73651_{29\,th}, \{73673\}^2_{(7245\ +\ \{30\})\ thp}, 73679_{31\,th}, 73681_{32\,th}, 73693_{33\,th},$
$73699_{34\,th}, 73709_{35\,th}, 73721_{36\,th}, 73727_{37\,th}, 73751_{38\,th}, 73757_{39\,th}, 73771_{40\,th},$
$73783_{41\,th}, 73819_{42\,th}, 73823_{43\,th}, 73847_{44\,th}, 73849_{45\,th}, 73859_{46\,th}, 73867_{47\,th},$
$73877_{48\,th}, 73883_{49\,th}, 73897_{50\,th}, 73907_{51\,th}, 73939_{52\,th}, 73943_{53\,th}, 73951_{54\,th},$
$73961_{55\,th}, 73973_{56\,th}, 73999_{57\,th}, 74017_{58\,th}, 74021_{59\,th}, 74027_{60\,th}, 74047_{61\,th}]$

$= [73703]^2$

$$[73703] - \{73673\} = 30$$

$SUM_{P_{Start = 8641\ thprime}}{}^{\{29\},\ [30]^2,\ P\{31\}}$ $[89213_{th}, 89227_{2\,th}, 89231_{3\,th}, 89237_{4\,th}, 89261_{5\,th},$
$89269_{6\,th}, 89273_{7\,th}, 89293_{8\,th}, 89303_{9\,th}, 89317_{10\,th}, 89329_{11\,th}, 89363_{12\,th}, 89371_{13\,th},$
$89381_{14\,th}, 89387_{15\,th}, 89393_{16\,th}, 89399_{17\,th}, 89413_{18\,th}, 89417_{19\,th}, 89431_{20\,th},$
$89443_{21\,th}, 89449_{22\,th}, 89459_{23\,th}, 89477_{24\,th}, 89491_{25\,th}, 89501_{26\,th}, 89513_{27\,th},$
$89519_{28\,th}, 89521_{29\,th}, \{89527\}^2_{(8641\ +\ \{30\})\ thp}, 89533_{31\,th}, 89561_{32\,th}, 89563_{33\,th},$
$89567_{34\,th}, 89591_{35\,th}, 89597_{36\,th}, 89599_{37\,th}, 89603_{38\,th}, 89611_{39\,th}, 89627_{40\,th},$
$89633_{41\,th}, 89653_{42\,th}, 89657_{43\,th}, 89659_{44\,th}, 89669_{45\,th}, 89671_{46\,th}, 89681_{47\,th},$
$89689_{48\,th}, 89753_{49\,th}, 89759_{50\,th}, 89767_{51\,th}, 89779_{52\,th}, 89783_{53\,th}, 89797_{54\,th},$
$89809_{55\,th}, 89819_{56\,th}, 89821_{57\,th}, 89833_{58\,th}, 89839_{59\,th}, 89849_{60\,th}, 89867_{61\,th}]$

$= [89557]^2$

$$[89557] - \{89527\} = 30$$

$$[P^2_{31}]$$

$SUM_{P_{Start = 6219\ thprime}}{}^{\{30\},\ [31]^2,\ P\{30\}}$ $[61843_{th}, 61861_{2\,th}, 61871_{3\,th}, 61879_{4\,th}, 61909_{5\,th},$
$61927_{6\,th}, 61933_{7\,th}, 61949_{8\,th}, 61961_{9\,th}, 61967_{10\,th}, 61979_{11\,th}, 61981_{12\,th}, 61987_{13\,th},$
$61991_{14\,th}, 62003_{15\,th}, 62011_{16\,th}, 62017_{17\,th}, 62039_{18\,th}, 62047_{19\,th}, 62053_{20\,th},$
$62057_{21\,th}, 62071_{22\,th}, 62081_{23\,th}, 62099_{24\,th}, 62119_{25\,th}, 62129_{26\,th}, 62131_{27\,th},$
$62137_{28\,th}, 62141_{29\,th}, 62143_{30\,th}, \{62171\}^2_{(6219\ +\ \{31\})\ thp}, 62189_{32\,th}, 62191_{33\,th},$
$62201_{34\,th}, 62207_{35\,th}, 62213_{36\,th}, 62219_{37\,th}, 62233_{38\,th}, 62273_{39\,th}, 62297_{40\,th},$
$62299_{41\,th}, 62303_{42\,th}, 62311_{43\,th}, 62323_{44\,th}, 62327_{45\,th}, 62347_{46\,th}, 62351_{47\,th},$

$62383_{48\,th}, 62401_{49\,th}, 62417_{50\,th}, 62423_{51\,th}, 62459_{52\,th}, 62467_{53\,th}, 62473_{54\,th},$

$62477_{55\,th}, 62483_{56\,th}, 62497_{57\,th}, 62501_{58\,th}, 62507_{59\,th}, 62533_{60\,th}, 62539_{61\,th}\Big]$

$= [62201]^2$

$$[62201] - \{62171\} = 30$$

$SUM_{P_{Start=8653\ thprime}}{}_{\{30\},\,[31]^2,\,P\{30\}}\Big[89371_{th}, 89381_{2\,th}, 89387_{3\,th}, 89393_{4\,th}, 89399_{5\,th},$

$89413_{6\,th}, 89417_{7\,th}, 89431_{8\,th}, 89443_{9\,th}, 89449_{10\,th}, 89459_{11\,th}, 89477_{12\,th}, 89491_{13\,th},$

$89501_{14\,th}, 89513_{15\,th}, 89519_{16\,th}, 89521_{17\,th}, 89527_{18\,th}, 89533_{19\,th}, 89561_{20\,th},$

$89563_{21\,th}, 89567_{22\,th}, 89591_{23\,th}, 89597_{24\,th}, 89599_{25\,th}, 89603_{26\,th}, 89611_{27\,th},$

$89627_{28\,th}, 89633_{29\,th}, 89653_{30\,th}, \{89657\}^2_{(8653\,+\,\{31\})\ thp}, 89659_{32\,th}, 89669_{33\,th},$

$89671_{34\,th}, 89681_{35\,th}, 89689_{36\,th}, 89753_{37\,th}, 89759_{38\,th}, 89767_{39\,th}, 89779_{40\,th},$

$89783_{41\,th}, 89797_{42\,th}, 89809_{43\,th}, 89819_{44\,th}, 89821_{45\,th}, 89833_{46\,th}, 89839_{47\,th},$

$89849_{48\,th}, 89867_{49\,th}, 89891_{50\,th}, 89897_{51\,th}, 89899_{52\,th}, 89909_{53\,th}, 89917_{54\,th},$

$89923_{55\,th}, 89939_{56\,th}, 89959_{57\,th}, 89963_{58\,th}, 89977_{59\,th}, 89983_{60\,th}, 89989_{61\,th}\Big]$

$= [89687]^2$

$$[89687] - \{89657\} = 30$$

$SUM_{P_{Start=8747\ thprime}}{}_{\{30\},\,[31]^2,\,P\{30\}}\Big[90353_{th}, 90359_{2\,th}, 90371_{3\,th}, 90373_{4\,th}, 90379_{5\,th},$

$90397_{6\,th}, 90401_{7\,th}, 90403_{8\,th}, 90407_{9\,th}, 90437_{10\,th}, 90439_{11\,th}, 90469_{12\,th}, 90473_{13\,th},$

$90481_{14\,th}, 90499_{15\,th}, 90511_{16\,th}, 90523_{17\,th}, 90527_{18\,th}, 90529_{19\,th}, 90533_{20\,th},$

$90547_{21\,th}, 90583_{22\,th}, 90599_{23\,th}, 90617_{24\,th}, 90619_{25\,th}, 90631_{26\,th}, 90641_{27\,th},$

$90647_{28\,th}, 90659_{29\,th}, 90677_{30\,th}, \{90679\}^2_{(8747\,+\,\{31\})\ thp}, 90697_{32\,th}, 90703_{33\,th},$

$90709_{34\,th}, 90731_{35\,th}, 90749_{36\,th}, 90787_{37\,th}, 90793_{38\,th}, 90803_{39\,th}, 90821_{40\,th},$

$90823_{41\,th}, 90833_{42\,th}, 90841_{43\,th}, 90847_{44\,th}, 90863_{45\,th}, 90887_{46\,th}, 90901_{47\,th},$

$90907_{48\,th}, 90911_{49\,th}, 90917_{50\,th}, 90931_{51\,th}, 90947_{52\,th}, 90971_{53\,th}, 90977_{54\,th},$

$90989_{55\,th}, 90997_{56\,th}, 91009_{57\,th}, 91019_{58\,th}, 91033_{59\,th}, 91079_{60\,th}, 91081_{61\,th}\Big]$

$= [90709]^2$

$$[90709] - \{90679\} = 30$$

$SUM_{P_{Start=9472\ thprime}}{}_{\{30\},\,[31]^2,\,P\{30\}}\Big[98663_{th}, 98669_{2\,th}, 98689_{3\,th}, 98711_{4\,th}, 98713_{5\,th},$

$98717_{6\,th}, 98729_{7\,th}, 98731_{8\,th}, 98737_{9\,th}, 98773_{10\,th}, 98779_{11\,th}, 98801_{12\,th}, 98807_{13\,th},$

$98809_{14\,th}, 98837_{15\,th}, 98849_{16\,th}, 98867_{17\,th}, 98869_{18\,th}, 98873_{19\,th}, 98887_{20\,th},$

$98893_{21\,th}, 98897_{22\,th}, 98899_{23\,th}, 98909_{24\,th}, 98911_{25\,th}, 98927_{26\,th}, 98929_{27\,th},$

$98939_{28\,th}, 98947_{29\,th}, 98953_{30\,th}, \{98963\}^2_{(9472\,+\,\{31\})\ thp}, 98981_{32\,th}, 98993_{33\,th},$

$98999_{34\,th}, 99013_{35\,th}, 99017_{36\,th}, 99023_{37\,th}, 99041_{38\,th}, 99053_{39\,th}, 99079_{40\,th},$

$99083_{41\,th}, 99089_{42\,th}, 99103_{43\,th}, 99109_{44\,th}, 99119_{45\,th}, 99131_{46\,th}, 99133_{47\,th},$
$99137_{48\,th}, 99139_{49\,th}, 99149_{50\,th}, 99173_{51\,th}, 99181_{52\,th}, 99191_{53\,th}, 99223_{54\,th},$
$99233_{55\,th}, 99241_{56\,th}, 99251_{57\,th}, 99257_{58\,th}, 99259_{59\,th}, 99277_{60\,th}, 99289_{61\,th}\Big]$
$= [98993]^2$

$$[98993] - \{98963\} = 30$$

$$\left[P_{32}^2\right]$$

$SUM_{P_{Start = 5159\ thprime}}{}_{\{31\},\,[32]^2,\,P\{29\}} \Big[50263_{th}, 50273_{2\,th}, 50287_{3\,th}, 50291_{4\,th}, 50311_{5\,th},$
$50321_{6\,th}, 50329_{7\,th}, 50333_{8\,th}, 50341_{9\,th}, 50359_{10\,th}, 50363_{11\,th}, 50377_{12\,th}, 50383_{13\,th},$
$50387_{14\,th}, 50411_{15\,th}, 50417_{16\,th}, 50423_{17\,th}, 50441_{18\,th}, 50459_{19\,th}, 50461_{20\,th},$
$50497_{21\,th}, 50503_{22\,th}, 50513_{23\,th}, 50527_{24\,th}, 50539_{25\,th}, 50543_{26\,th}, 50549_{27\,th},$
$50551_{28\,th}, 50581_{29\,th}, 50587_{30\,th}, 50591_{31\,th}, \{50593\}^2_{(5159\,+\,\{32\})\ thp}, 50599_{33\,th},$
$50627_{34\,th}, 50647_{35\,th}, 50651_{36\,th}, 50671_{37\,th}, 50683_{38\,th}, 50707_{39\,th}, 50723_{40\,th},$
$50741_{41\,th}, 50753_{42\,th}, 50767_{43\,th}, 50773_{44\,th}, 50777_{45\,th}, 50789_{46\,th}, 50821_{47\,th},$
$50833_{48\,th}, 50839_{49\,th}, 50849_{50\,th}, 50857_{51\,th}, 50867_{52\,th}, 50873_{53\,th}, 50891_{54\,th},$
$50893_{55\,th}, 50909_{56\,th}, 50923_{57\,th}, 50929_{58\,th}, 50951_{59\,th}, 50957_{60\,th}, 50969_{61\,th}\Big]$
$= [50623]^2$

$$[50623] - \{50593\} = 30$$

$SUM_{P_{Start = 5789\ thprime}}{}_{\{31\},\,[32]^2,\,P\{29\}} \Big[57089_{th}, 57097_{2\,th}, 57107_{3\,th}, 57119_{4\,th}, 57131_{5\,th},$
$57139_{6\,th}, 57143_{7\,th}, 57149_{8\,th}, 57163_{9\,th}, 57173_{10\,th}, 57179_{11\,th}, 57191_{12\,th}, 57193_{13\,th},$
$57203_{14\,th}, 57221_{15\,th}, 57223_{16\,th}, 57241_{17\,th}, 57251_{18\,th}, 57259_{19\,th}, 57269_{20\,th},$
$57271_{21\,th}, 57283_{22\,th}, 57287_{23\,th}, 57301_{24\,th}, 57329_{25\,th}, 57331_{26\,th}, 57347_{27\,th},$
$57349_{28\,th}, 57367_{29\,th}, 57373_{30\,th}, 57383_{31\,th}, \{57389\}^2_{(5789\,+\,\{32\})\ thp}, 57397_{33\,th},$
$57413_{34\,th}, 57427_{35\,th}, 57457_{36\,th}, 57467_{37\,th}, 57487_{38\,th}, 57493_{39\,th}, 57503_{40\,th},$
$57527_{41\,th}, 57529_{42\,th}, 57557_{43\,th}, 57559_{44\,th}, 57571_{45\,th}, 57587_{46\,th}, 57593_{47\,th},$
$57601_{48\,th}, 57637_{49\,th}, 57641_{50\,th}, 57649_{51\,th}, 57653_{52\,th}, 57667_{53\,th}, 57679_{54\,th},$
$57689_{55\,th}, 57697_{56\,th}, 57709_{57\,th}, 57713_{58\,th}, 57719_{59\,th}, 57727_{60\,th}, 57731_{61\,th}\Big]$
$= [57419]^2$

$$[57419] - \{57389\} = 30$$

$SUM_{P_{Start = 6932\ thprime}}{}_{\{31\},\,[32]^2,\,P\{29\}} \Big[69941_{th}, 69959_{2\,th}, 69991_{3\,th}, 69997_{4\,th}, 70001_{5\,th},$
$70003_{6\,th}, 70009_{7\,th}, 70019_{8\,th}, 70039_{9\,th}, 70051_{10\,th}, 70061_{11\,th}, 70067_{12\,th}, 70079_{13\,th},$
$70099_{14\,th}, 70111_{15\,th}, 70117_{16\,th}, 70121_{17\,th}, 70123_{18\,th}, 70139_{19\,th}, 70141_{20\,th},$
$70157_{21\,th}, 70163_{22\,th}, 70177_{23\,th}, 70181_{24\,th}, 70183_{25\,th}, 70199_{26\,th}, 70201_{27\,th},$

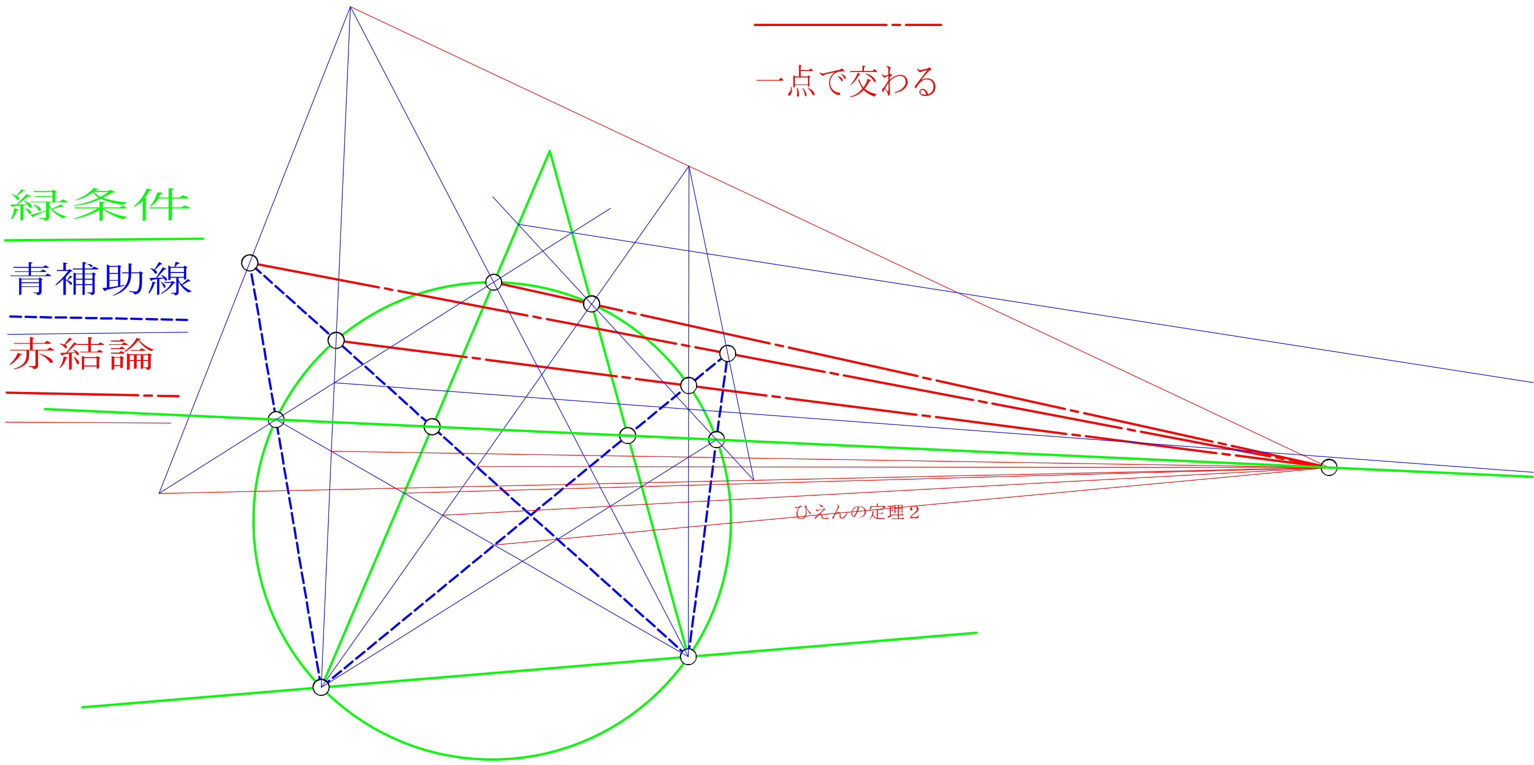
$70207_{28\,th}$, $70223_{29\,th}$, $70229_{30\,th}$, $70237_{31\,th}$, $\{70241\}^2_{(6932\,+\,\{32\})\,thp}$, $70249_{33\,th}$,
$70271_{34\,th}$, $70289_{35\,th}$, $70297_{36\,th}$, $70309_{37\,th}$, $70313_{38\,th}$, $70321_{39\,th}$, $70327_{40\,th}$,
$70351_{41\,th}$, $70373_{42\,th}$, $70379_{43\,th}$, $70381_{44\,th}$, $70393_{45\,th}$, $70423_{46\,th}$, $70429_{47\,th}$,
$70439_{48\,th}$, $70451_{49\,th}$, $70457_{50\,th}$, $70459_{51\,th}$, $70481_{52\,th}$, $70487_{53\,th}$, $70489_{54\,th}$,
$70501_{55\,th}$, $70507_{56\,th}$, $70529_{57\,th}$, $70537_{58\,th}$, $70549_{59\,th}$, $70571_{60\,th}$, $70573_{61\,th}$]
$= [70271]^2$

$$[70271] - \{70241\} = 30 \tag{1}$$

>

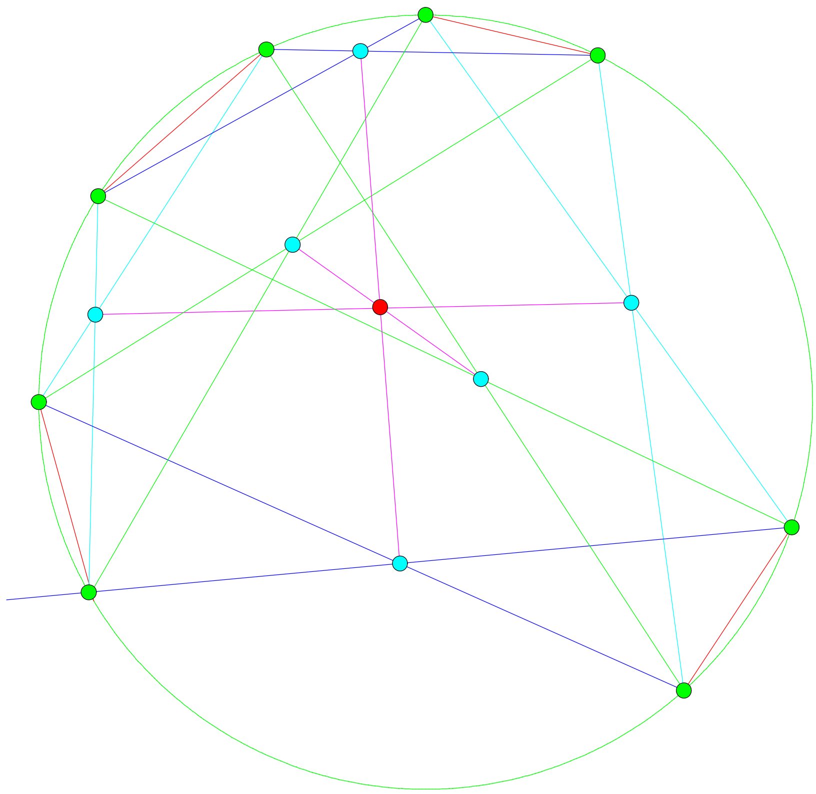
EH−T005

ひえんの定理１



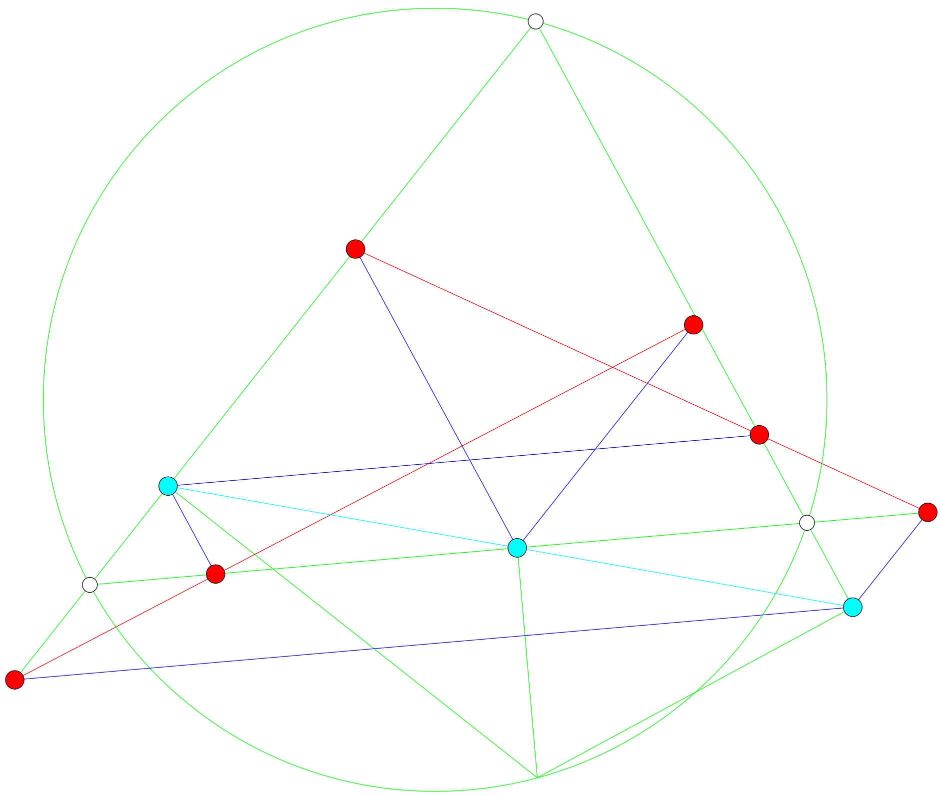
EH-T006

5’　円8点　3線共点　定理(ABCDの定理)



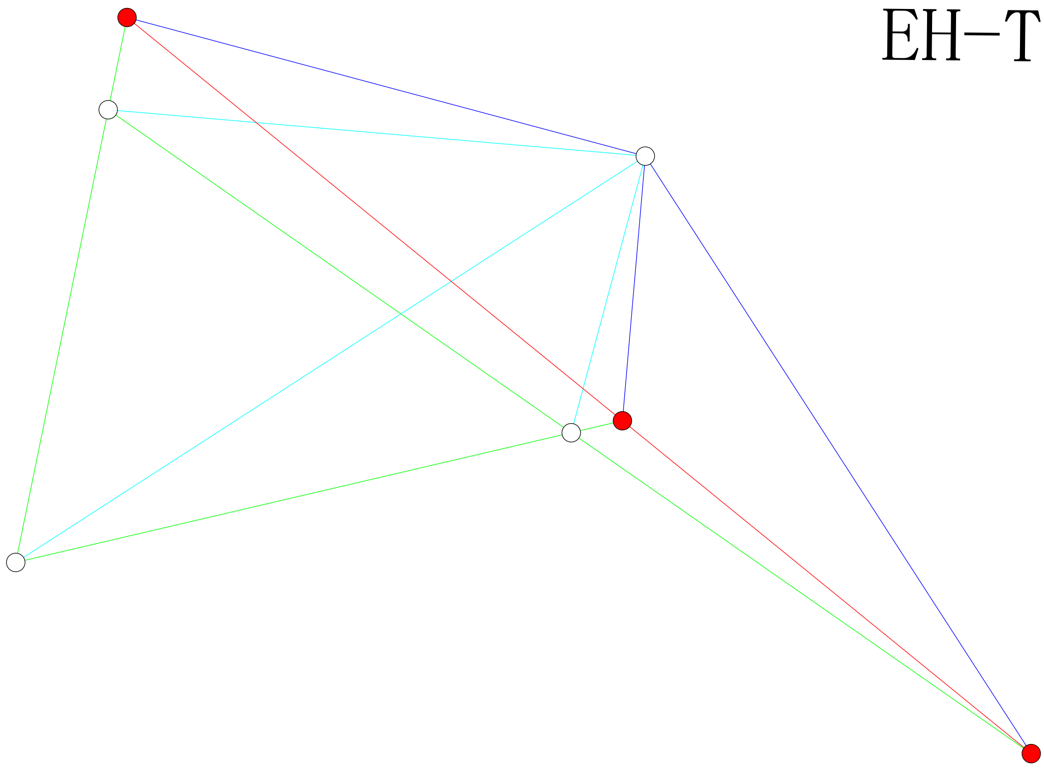
蛭子井シムソンの定理

EH-T010

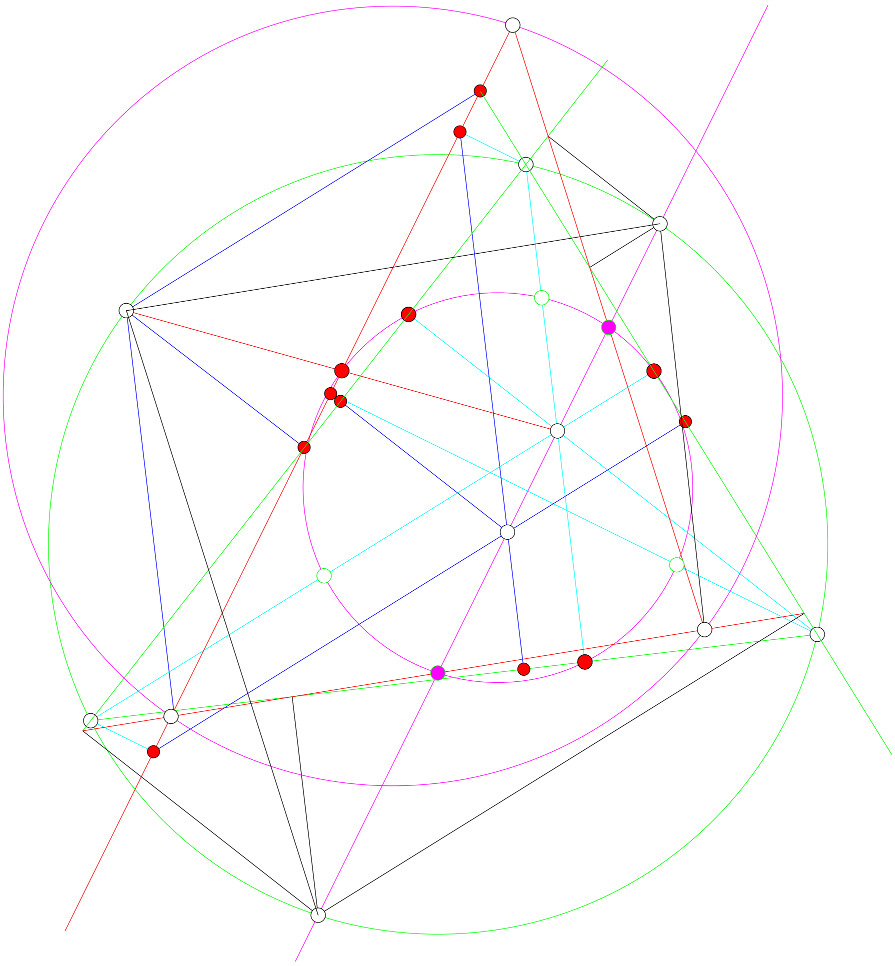


3垂線の定理

EH-T011



シムソン線直極点線合同定理

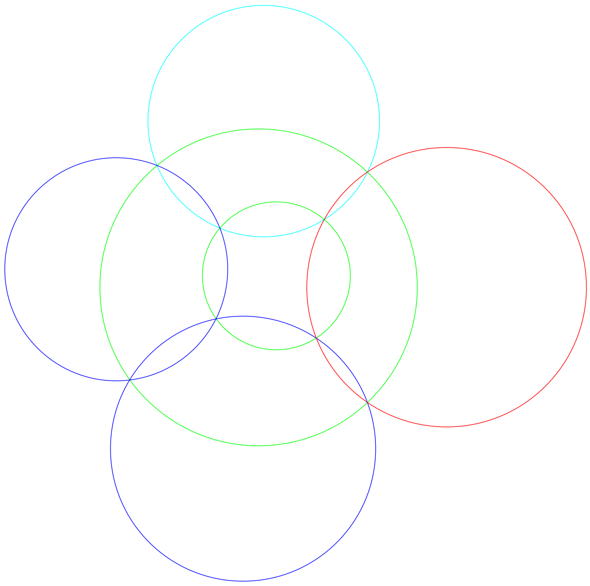


2012-3-21

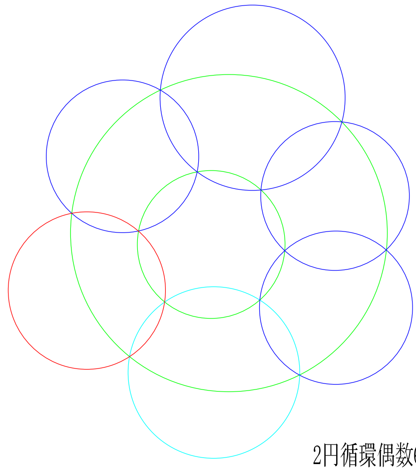
蛭子井博孝

シムソン線蛭子井線合同定理

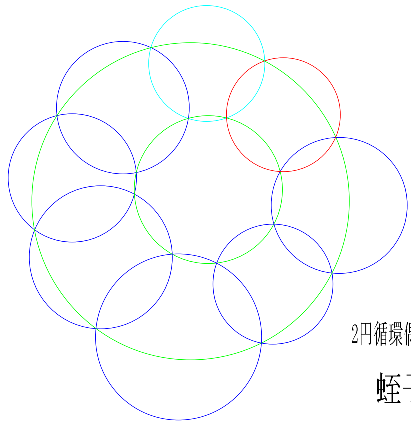
2円偶数の定理



2円循環偶数４円の定理



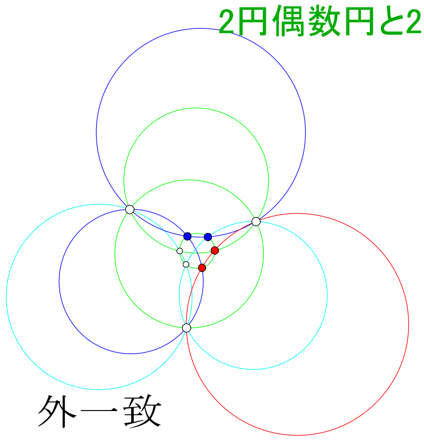
2円循環偶数6円の定理

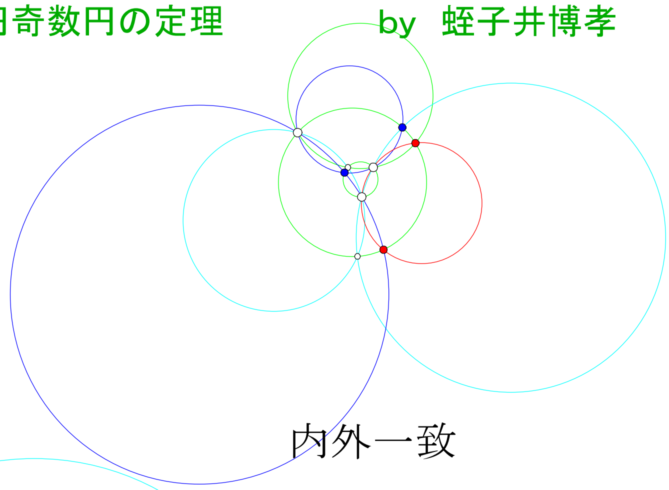


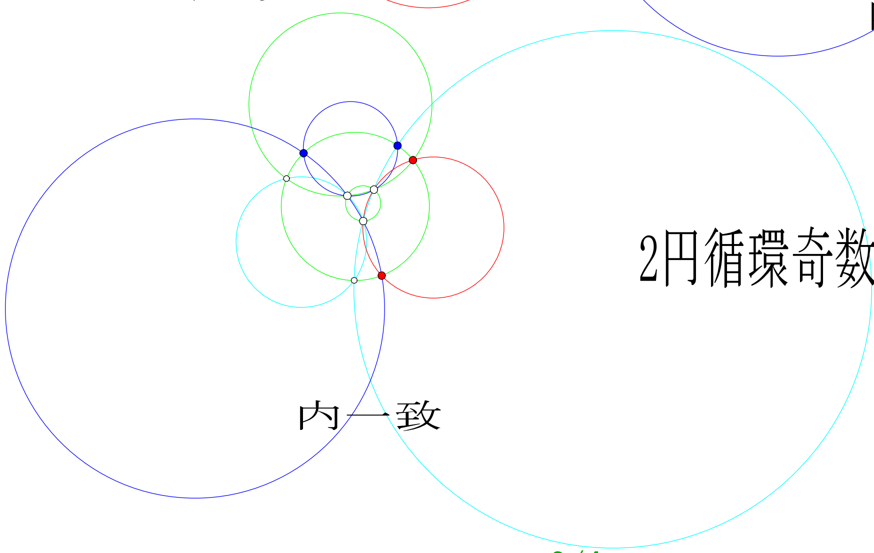
2円循環偶数8円の定理

蛭子井博孝

2円偶数円と2円奇数円の定理　　by　蛭子井博孝







2円循環奇数2重円の定理

2円循環奇数2重3円の定理

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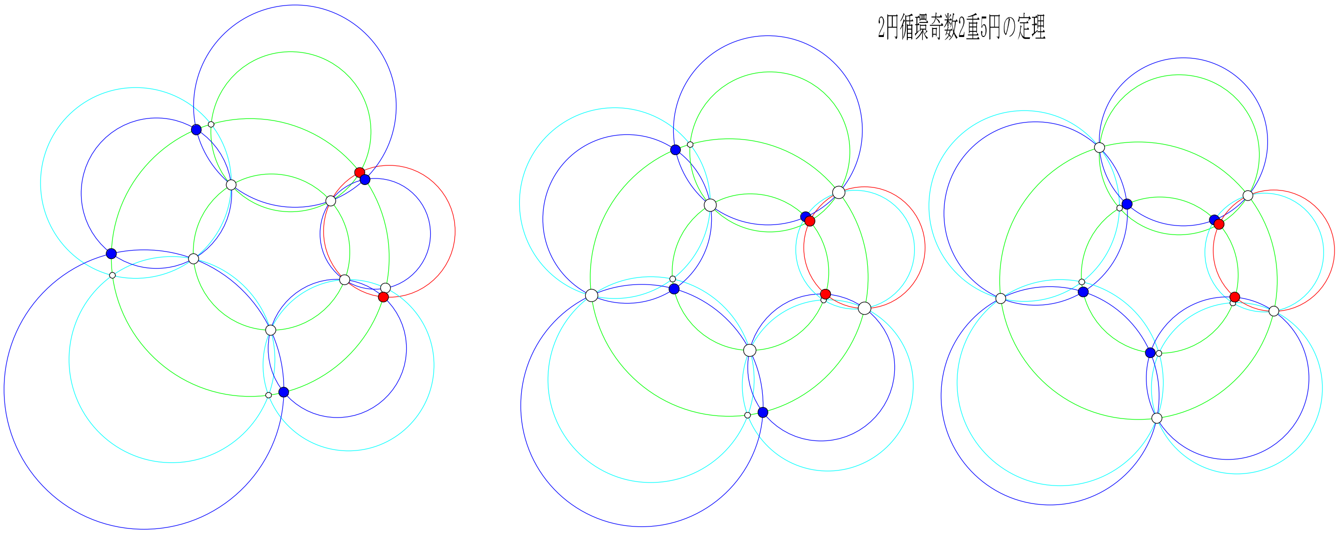
2円循環奇数2重円の定理

2円循環奇数2重5円の定理

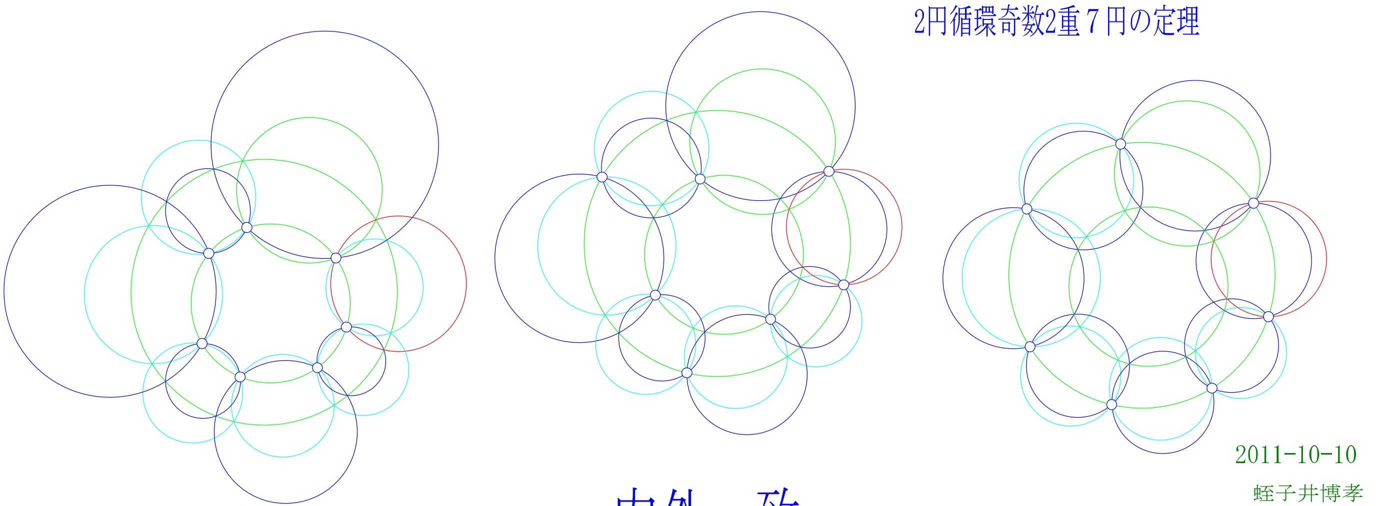


内一致　　　内外一致　　　外一致

蛭子井博孝

2円循環奇数2重円の定理

2円循環奇数2重７円の定理



2011-10-10

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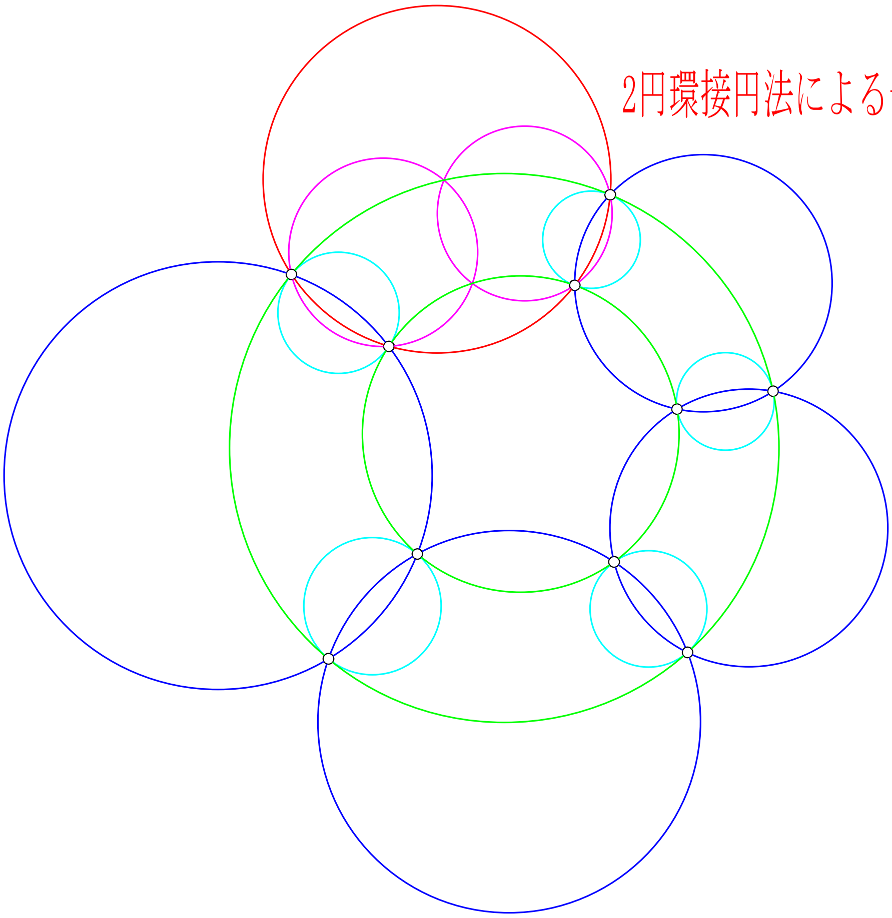
内外一致

外一致

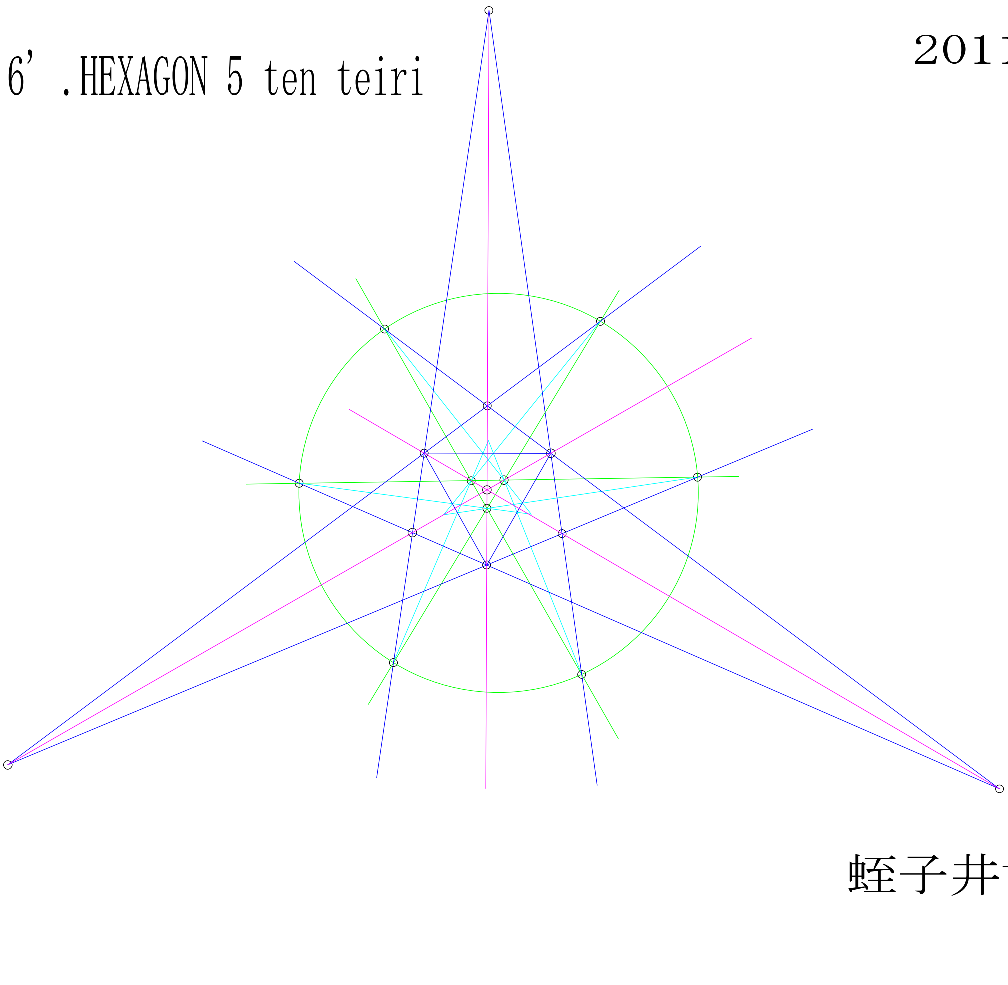
内一致



蛭子井博孝

2011-9-6

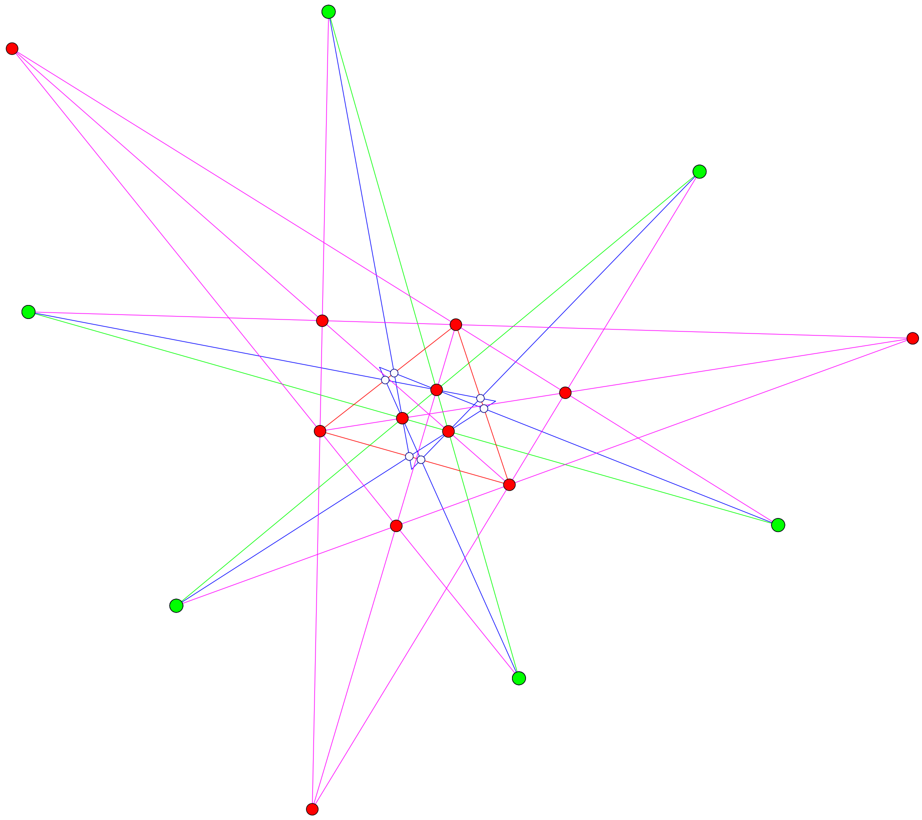
6' .HEXAGON 5 ten teiri



蛭子井博孝

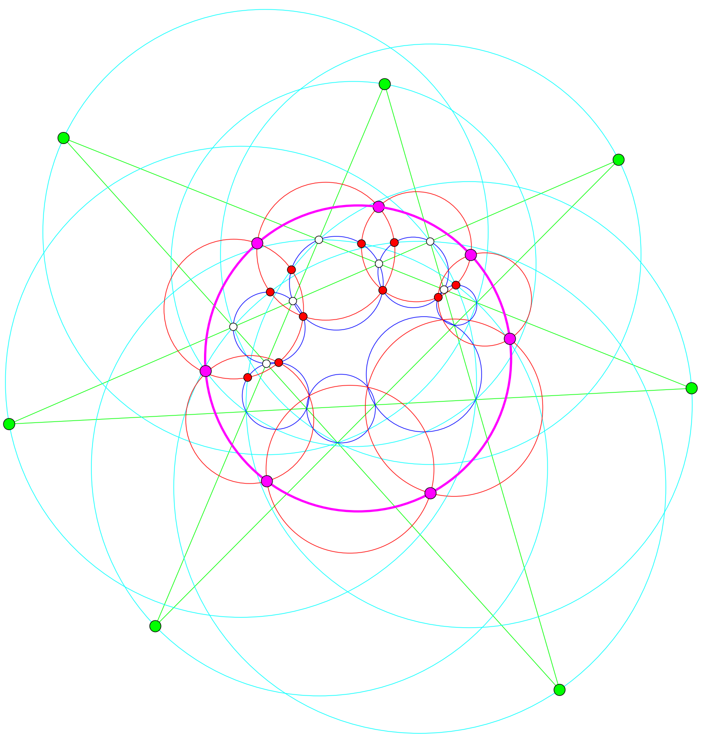
3-4点共線定理

EH-T009



7点円の定理

EH-T014



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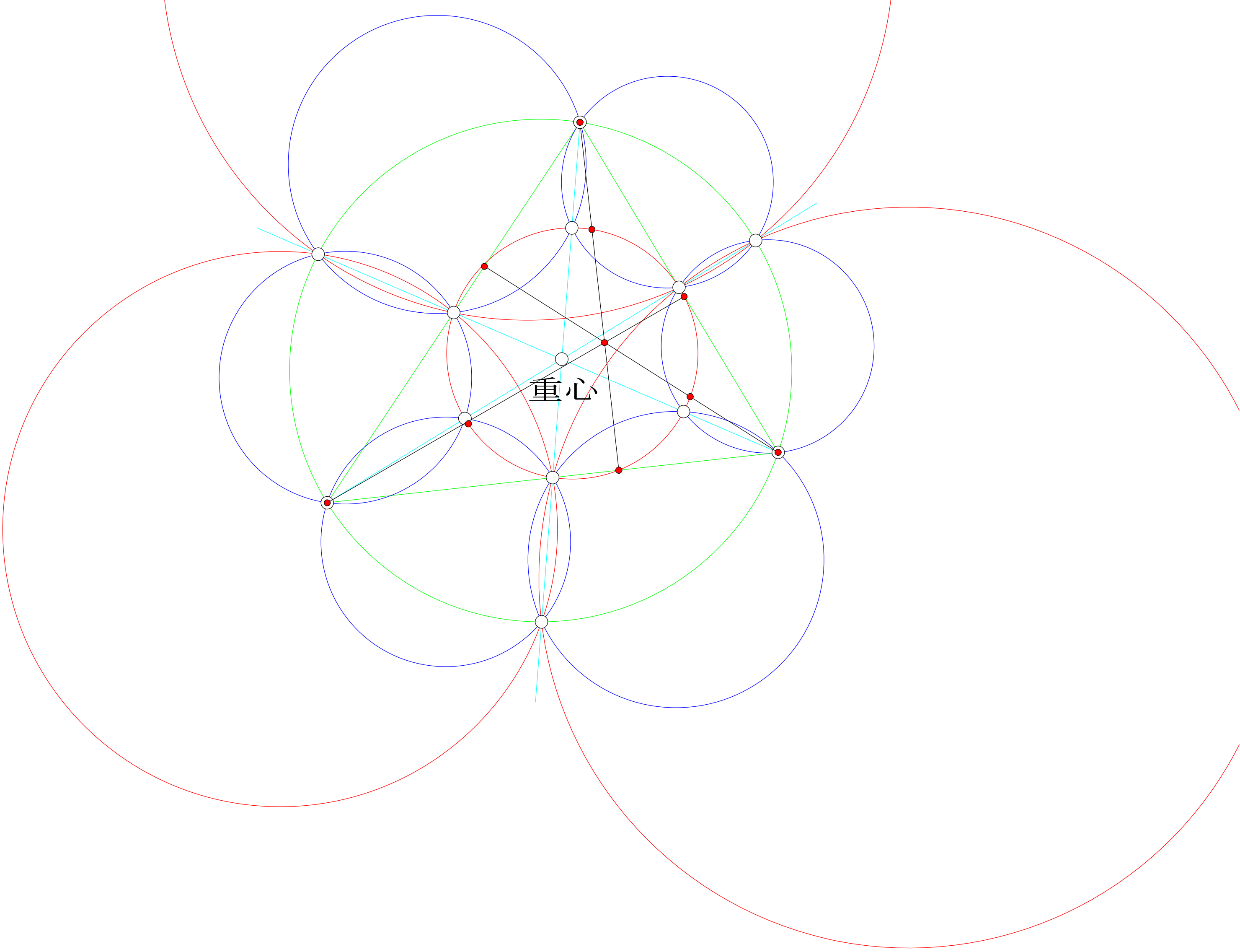
2012-11-23

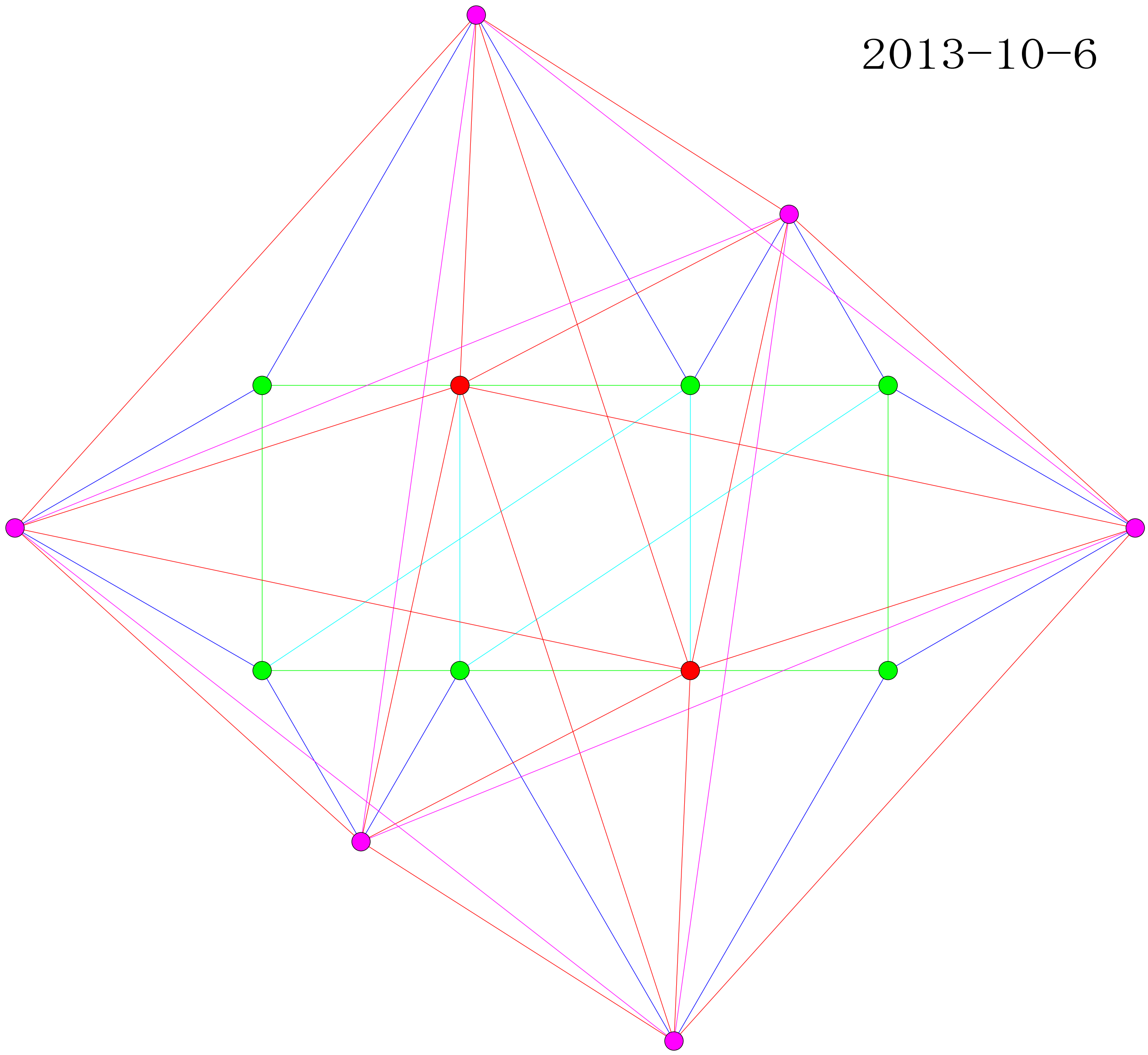
重心6点円の3円6円奇数偶数円の定理

12点円



EH-T015

長方形分割正三角形の正三角形定理



2013-10-6

蛭子井博孝

あとがき

卵形線を楕円の拡張として考えてきた。しかし、点と円からの距離の比が一定な曲線で考えたとき，比 m:n が m/n<1 を考えるべきであったが、これまで m/n>1 で、作図が考えやすい方を、図にしてきた。また Doval の原始定義を思いつき、そのための幾何学の基礎を考えてきた。この数幾何形学は、以上の 2 つを考慮するため、Doval を再考する必要があることがわかり，この本を、その再考のための本とすることにした。もう経歴も要らない、ただ、真摯な本を残したい。これからの人生を、この本を使って、Doval 再考のために費やせれば幸いである。

蛭子井博孝　2013-10-8　深夜

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EH-T999