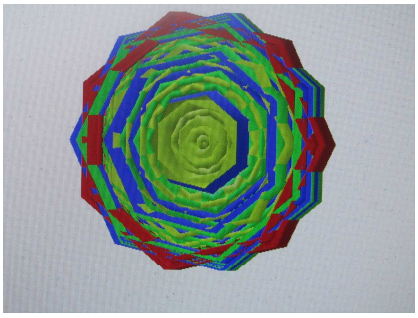
数学日記

geoMathe Diary31th

IDEAL and Passion No.4

by Hirotaka Ebisui（Edit Writer） and Maria Intagliata（writer）

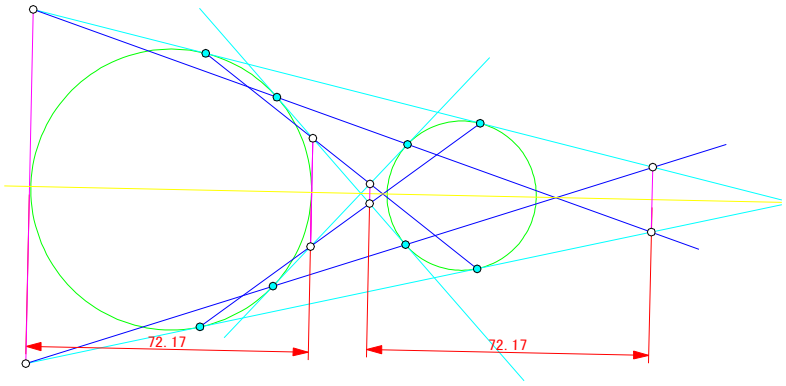
Love



by H.E

contents

IP=4 をつくっている。200 語メモの題を flower に決めていた。我々は、まだちぐはぐなメモを残しているようだ。彼女の 3D 見て、私のメモを書いた。
何を言おうとしたよくわからない。
numtable は、大きすぎ、また 2 は、ささやかになった。TOP を LOVE にした何ができるだろうか。ありがとう。１４ hirotaka 記



by H.E

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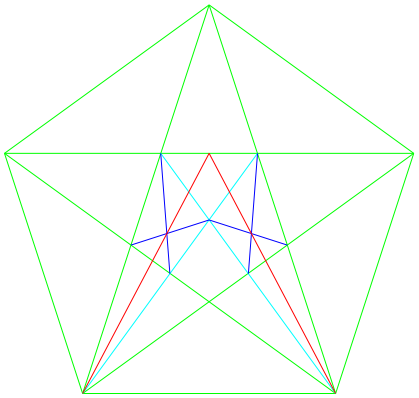
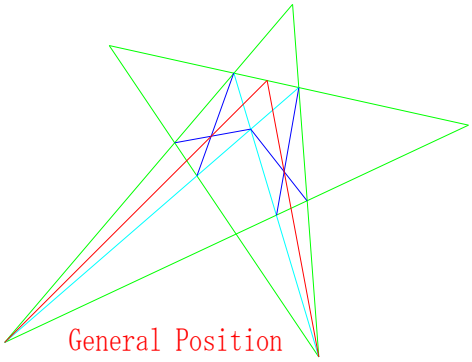
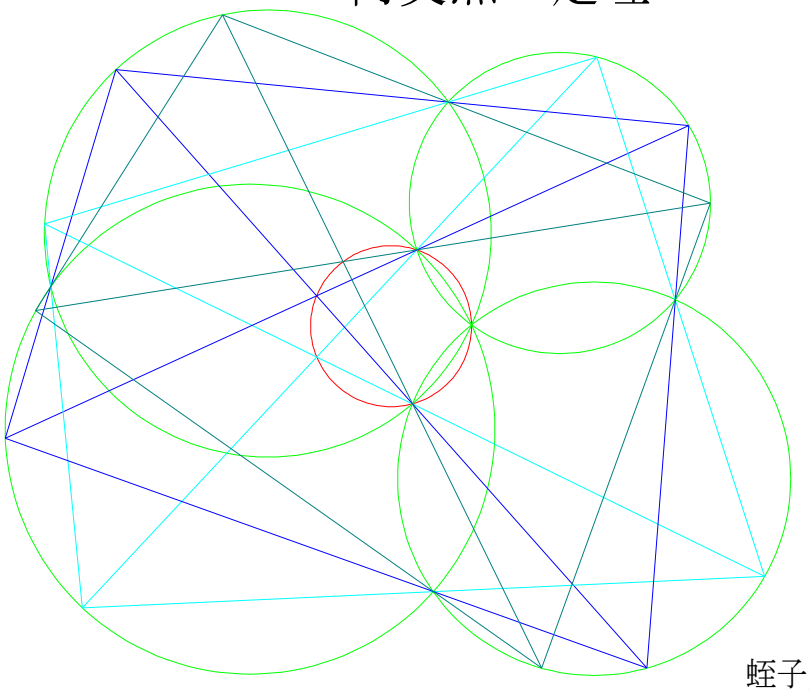
2. Some Theorems wandering in Geometry



PentagonTheorem



円交点の定理



蛭子井博孝

3。 3 D EQG by M.I

FLOW2

x=cos(6*u-6*v)*0.7*cos(7*v+6*u)*sin(v)^3

y=sin(u)*sin(v)

z=cos(u)*sin(v)

FLOW5

x=4*cos(sin(cos(1.3*u*v-1.01*2*
sin(2*u-3*v)))^2*0.91*sin(u*v)^3

y=2*sin(0.8*cos(u))^2*1.13*sin(v)^3

z=0.6*(sin(u)+cos(u))^3*1.5*sin(2*v-3*v)^2

FLOW3

x=3.5^cos(6*u-6*v)*0.7*cos(7*v-6*u)*sin(v)^3

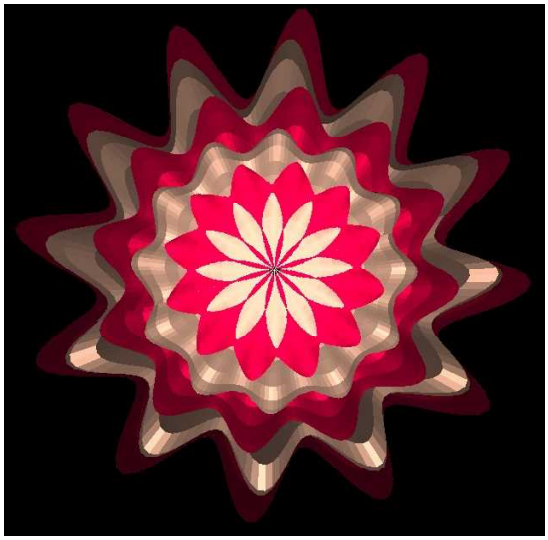
y=sin(u)*sin(v)

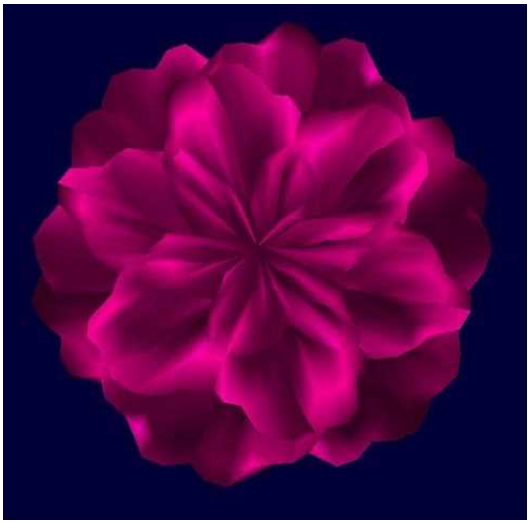
z=cos(u)*sin(v)

x=3^sin(cos(6*u+6*v))*0.8
*cos(sin(6*v-5*u))

y=1.18*sin(u)*sin(sin(v))

z=cos(u)*sin(v)





4 Number Table 1

$$\{Pm < n^5 < P(m+1) | 2 \le n \le 16\}$$

$$[2]^5\ prit\ me = [[P(11) = 31], [[2]^5 = 32], [P(12) = 37]]$$

$$[3]^5\ prit\ me = [[P(53) = 241], [[3]^5 = 243], [P(54) = 251]]$$

$$[4]^5\ prit\ me = [[P(172) = 1021], [[4]^5 = 1024], [P(173) = 1031]]$$

$$[5]^5\ prit\ me = [[P(445) = 3121], [[5]^5 = 3125], [P(446) = 3137]]$$

$$[6]^5\ prit\ me = [[P(985) = 7759], [[6]^5 = 7776], [P(986) = 7789]]$$

$$[7]^5\ prit\ me = [[P(1939) = 16787], [[7]^5 = 16807], [P(1940) = 16811]]$$

$$[8]^5\ prit\ me = [[P(3512) = 32749], [[8]^5 = 32768], [P(3513) = 32771]]$$

$$[9]^5\ prit\ me = [[P(5968) = 59029], [[9]^5 = 59049], [P(5969) = 59051]]$$

$$[10]^5\ prit\ me = [[P(9592) = 99991], [[10]^5 = 100000], [P(9593) = 100003]]$$

$$[11]^5\ prit\ me = [[P(14773) = 161047], [[11]^5 = 161051], [P(14774) = 161053]]$$

$$[12]^5\ prit\ me = [[P(21950) = 248827], [[12]^5 = 248832], [P(21951) = 248839]]$$

$$[13]^5\ prit\ me = [[P(31616) = 371291], [[13]^5 = 371293], [P(31617) = 371299]]$$

$$[14]^5\ prit\ me - [[P(44413) - 537811], [[14]^5 - 537824], [P(44414) - 537841]]$$

$$[15]^5\ prit\ me = [[P(60927) = 759371], [[15]^5 = 759375], [P(60928) = 759377]]$$

$$[16]^5\ prit\ me = [[P(82025) = 1048573], [[16]^5 = 1048576], [P(82026) = 1048583]] \quad (1)$$

Table2

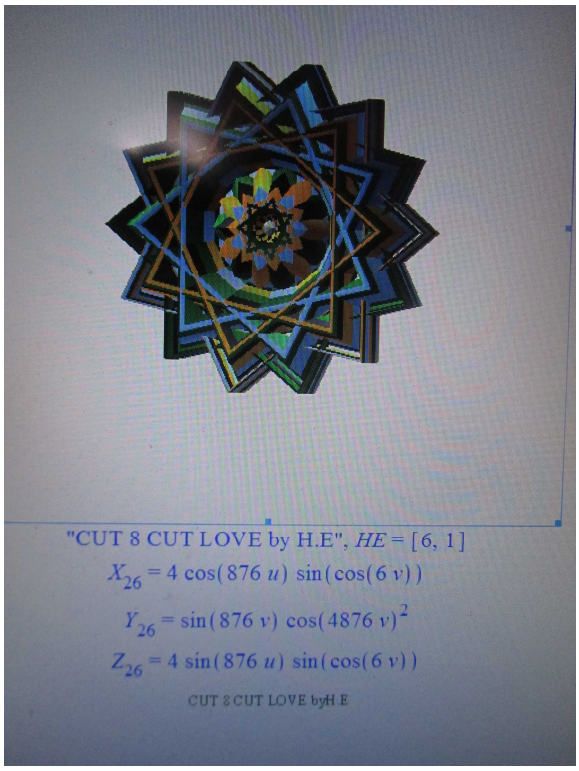
Pris are defined as {(p1,p2,x,n)|p1+p2=x^n}**by** H.E :

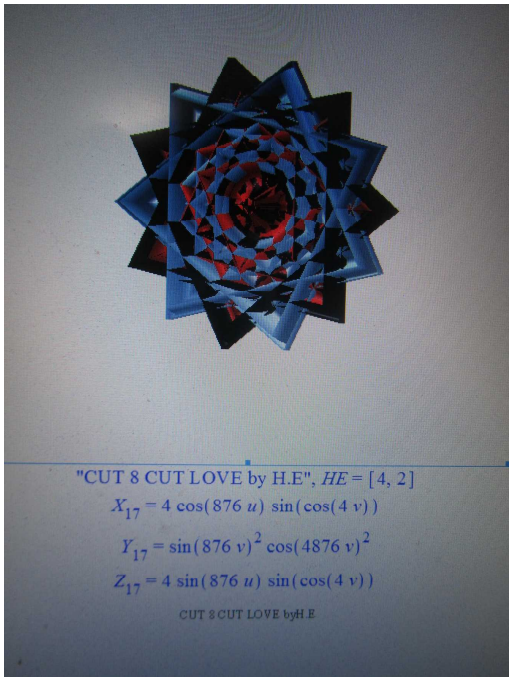
#We show 25 2jou- 2 Pris, 8 3jou-3pris in THIS Table:

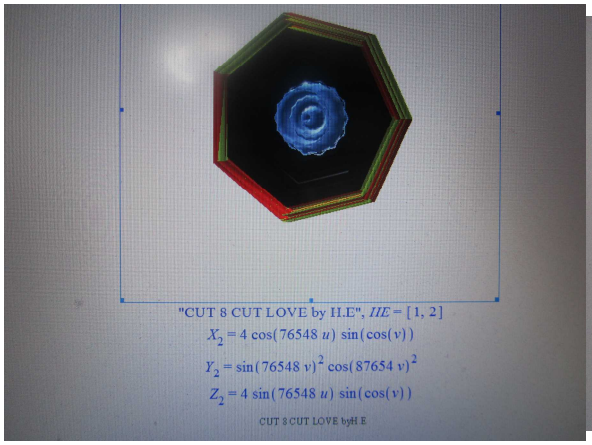
$$\text{Count } [Pris = [17, 19], 36 = [6]^2]$$
$$2\ \text{Count } [Pris = [47, 53], 100 = [10]^2]$$
$$3\ \text{Count } [Pris = [71, 73], 144 = [12]^2]$$
$$4\ \text{Count } [Pris = [283, 293], 576 = [24]^2]$$
$$5\ \text{Count } [Pris = [881, 883], 1764 = [42]^2]$$
$$6\ \text{Count } [Pris = [1151, 1153], 2304 = [48]^2]$$
$$7\ \text{Count } [Pris = [1913, 1931], 3844 = [62]^2]$$
$$8\ \text{Count } [Pris = [2591, 2593], 5184 = [72]^2]$$
$$9\ \text{Count } [Pris = [3527, 3529], 7056 = [84]^2]$$
$$10\ \text{Count } [Pris = [4049, 4051], 8100 = [90]^2]$$
$$11\ \text{Count } [Pris = [6047, 6053], 12100 = [110]^2]$$
$$12\ \text{Count } [Pris = [7193, 7207], 14400 = [120]^2]$$
$$13\ \text{Count } [Pris = [7433, 7451], 14884 = [122]^2]$$
$$14\ \text{Count } [Pris = [15137, 15139], 30276 = [174]^2]$$
$$15\ \text{Count } [Pris = [20807, 20809], 41616 = [204]^2]$$
$$16\ \text{Count } [Pris = [21617, 21647], 43264 = [208]^2]$$
$$17\ \text{Count } [Pris = [24197, 24203], 48400 = [220]^2]$$
$$18\ \text{Count } [Pris = [26903, 26921], 53824 = [232]^2]$$
$$19\ \text{Count } [Pris = [28793, 28807], 57600 = [240]^2]$$
$$20\ \text{Count } [Pris = [34847, 34849], 69696 = [264]^2]$$
$$21\ \text{Count } [Pris = [46817, 46819], 93636 = [306]^2]$$
$$22\ \text{Count } [Pris = [53129, 53147], 106276 = [326]^2]$$
$$23\ \text{Count } [Pris = [56443, 56453], 112896 = [336]^2]$$
$$24\ \text{Count } [Pris = [69191, 69193], 138384 = [372]^2]$$
$$25\ \text{Count } [Pris = [74489, 74507], 148996 = [386]^2] \quad \textbf{(1)}$$

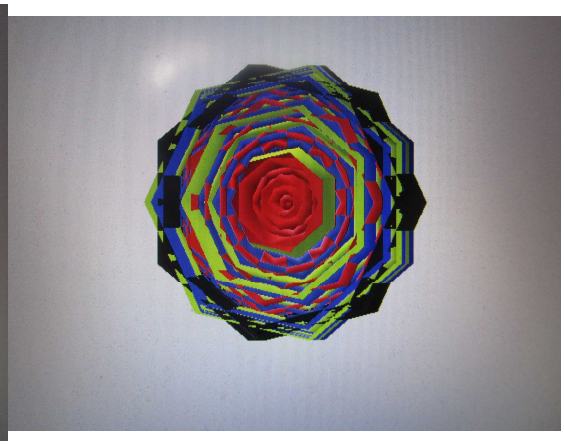
$$\text{Count } 1_{88\ th\ prime}\ [Pris = [439, 443, 449], 1331 = [11]^3]$$
$$\text{Count } 2_{3699\ th\ prime}\ [Pris = [34603, 34607, 34613], 103823 = [47]^3]$$
$$\text{Count } 3_{79703\ th\ prime}\ [Pris = [1016201, 1016203, 1016221], 3048625 = [145]^3]$$
$$\text{Count } 4_{263169\ th\ prime}\ [Pris = [3696493, 3696523, 3696551], 11089567 = [223]^3]$$
$$\text{Count } 5_{283356\ th\ prime}\ [Pris = [4002991, 4002997, 4003001], 12008989 = [229]^3]$$
$$\text{Count } 6_{434938\ th\ prime}\ [Pris = [6344687, 6344729, 6344747], 19034163 = [267]^3]$$
$$\text{Count } 7_{678280\ th\ prime}\ [Pris = [10221397, 10221443, 10221457], 30664297 = [313]^3]$$
$$\text{Count } 8_{950267\ th\ prime}\ [Pris = [14662309, 14662331, 14662337], 43986977 = [353]^3] \quad \textbf{(2)}$$

5. 3 D EQG by H.E


"CUT 8 CUT LOVE by H.E", HE = [6, 1]
X26 = 4 cos(876 u) sin(cos(6 v))
Y26 = sin(876 v) cos(4876 v)^2
Z26 = 4 sin(876 u) sin(cos(6 v))
CUT 8 CUT LOVE byH E


"CUT 8 CUT LOVE by H.E", HE = [4, 2]
X17 = 4 cos(876 u) sin(cos(4 v))
Y17 = sin(876 v)^2 cos(4876 v)^2
Z17 = 4 sin(876 u) sin(cos(4 v))
CUT 8 CUT LOVE byH E


"CUT 8 CUT LOVE by H.E", IIE = [1, 2]
X2 = 4 cos(76548 u) sin(cos(v))
Y2 = sin(76548 v)^2 cos(87654 v)^2
Z2 = 4 sin(76548 u) sin(cos(v))
CUT 8 CUT LOVE byH E



6.　"Flower"

花それは、大きなあこがれ、すぐにしぼむ朝顔
そこにある美は、一つ一つが、大きな愛を語り
命を与える大きな論理。
だが、美は、陰に隠れ、見えない。
今日もまた、咲く朝顔
突然　君は現れ、たたずむ。
ちいさな僕を、眺め消えていく。
分けもなく涙があふれ、すべては、夢の中にあり、
ただ、かなしさが、涙する。
しらない町の知らない人が、花を、もてあそぶ。
しかし、花は、多くを物語る。
ああ、これからが、人生。そう言って、笑っている。

Flower desires a big life.
and soon disapears,
She is morning flower.
The beuaty are talking about big love and theorem.
but, she will hide, and we can not look at them.
she open in the morning again.
suddenly she apears and stands in front of me
and sees a little thought of me and will die.
A lot of tears apears, and she disapears into some dream.
only sadness crys.
At an unknown town, unkown people handle her beauty wildly.
but, she tells the truth.
"oh, all in the future are my live".
she is smiling and he says.

In Italian

Fiori

Se mi venisse data la possibilità di rinascere e di scegliere una diversa natura in una nuova vita, sceglierei di essere un fiore.
Qualcuno ha detto che insieme alle stelle e ai bambini i fiori sono ciò che ci è rimasto del Paradiso. Se non si vuole incorrere nel dubbio sull'esistenza di un Creatore del mondo, basta guardare i fiori illuminati dal sole. La loro bellezza è tale da rendere sopportabile perfino la vita più cinica, più triste e solitaria. Sono sicuramente un capolavoro della natura, una vera opera d'arte: armoniosa sintesi di luce, colore, fragranze inebrianti, forme sorprendenti e perfino strutture matematiche e geometriche.
Osservarli dondolarsi armoniosi sugli steli è una delizia per gli occhi ed una carezza per l'anima. E che dire dei loro messaggi? Un fiore può comunicare amore, bellezza, tenerezza, perdono, augurio e perfino cordoglio. Sembra possedere una sensibilità femminile. Come l'amore e la delicatezza sono il calore che ad una donna fa aprire le braccia alla passione, così il fiore muore se lo si vuole schiudere con la forza: solo il tepore del sole sa aprirlo dolcemente.
Ma quello che più mi colpisce di un fiore è la sua "umiltà" ed insieme la sua forza.
Pur resistente alle sferzate del vento, al rigore del freddo e alla sete della calura, è dolcemente arrendevole: nella sua grandezza di naturale opera d'arte, si piega "umile", nella sua breve vita, alla superbia del tempo e all'impeto della Natura.

Umiltà

Nasce, cresce, muore
un fiore nel giardino.
Ieri era in boccio,
oggi sorride al sole.

Domani, umilmente,
accetterà la sfida
del tempo inesorabile,
della natura nemica.

Accetto, umilmente,
il mio domani.
Anch'io vedrò la forza
della superba vita.

In English

Flowers

If I had the chance to be reborn and to choose a different nature into a new life, I would choose to be a flower.
Someone said that along with the stars and the children the flowers are what is left of Paradise. If you do not want to incur in case of doubt on the existence of a Creator of the world, just look at the flowers illuminated by the sun. Their beauty is such as to make life bearable even more cynical, more sad and lonely. They are definitely a masterpiece of nature, a true work of art: harmonious synthesis of light, color, heady fragrances, amazing shapes and even mathematical and geometrical structures.
Observing harmonious swing on the stems is a delight for the eyes and a caress for the soul. And what about their posts? A flower can communicate love, beauty, tenderness, forgiveness, hope and even sympathy. He seems to have a feminine sensibility. Like love and delicacy are the heat that let a woman opens her arms to the passion, so the flower dies if you want to open up by force: only the warmth of the sun knows how to open it gently.
But what strikes me most of a flower is its "humility" and together with its strength.
While resistant to wind lashed to the severity of cold and heat, thirst, is sweetly submissive: in its natural greatness of a work of art, it bends "humble" in his short life, the pride of the time and the rush of Nature.

Humility

Is born, grows, dies
a flower in the garden.
Yesterday it was in bud,
smiling in the sun today.
Tomorrow, humbly,
accepts the challenge
of inexorable time,
of the nature enemy.
I accept, humbly,
my tomorrow.
Even when I see the strength
of the superb life.

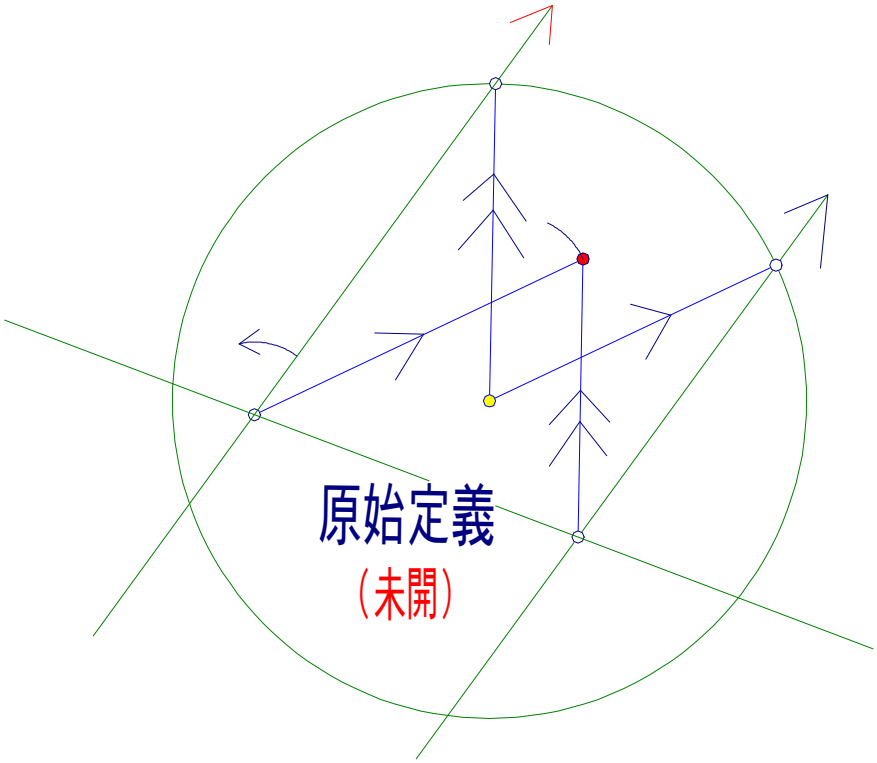
7 Doval

Definitions Of Doval

Doval(動張る）の定義集

蛭子井博孝著

Doval とは、点と円からの距離の比が一定な曲線



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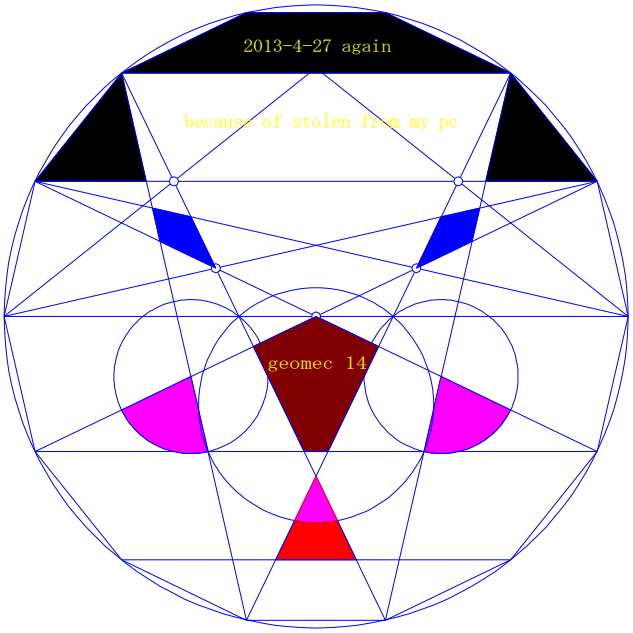
~~http://aitoyume.de-blog.jp/doval/~~

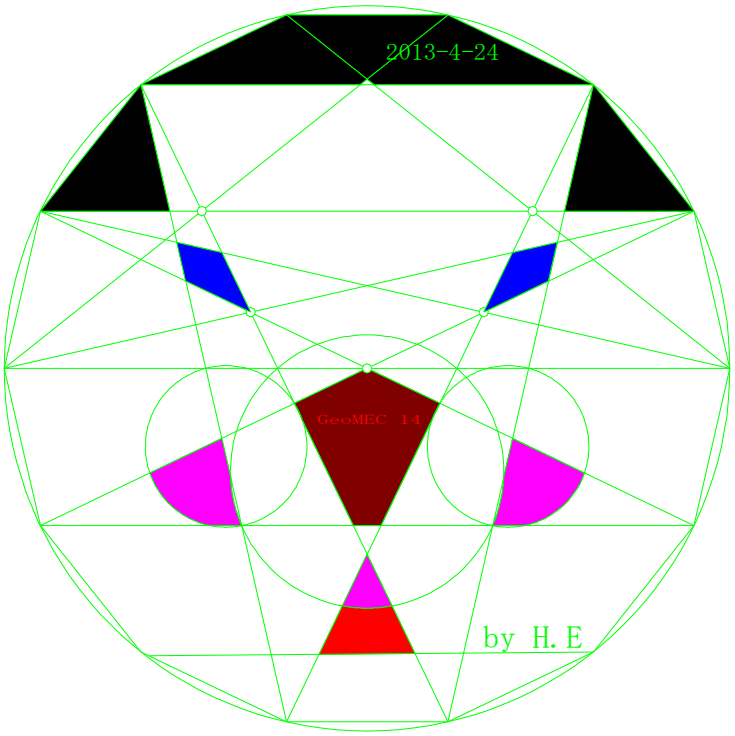
http://eh85.blogzine.jp/

http://hoval1.blogzine.jp/

Thank you!!!



THANK YOU!!!



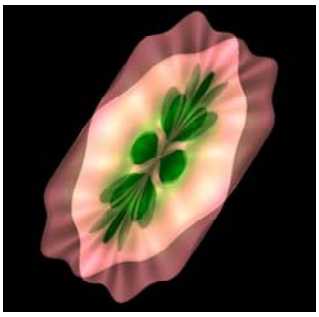
数学日記

geoMathe Diary 32th

IDEAL and Passion　No.5

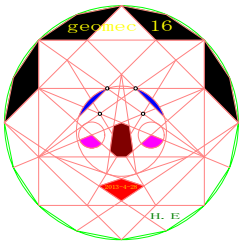
by Hirotaka Ebisui

Last Lief



by　M.I

Thank you!!!



contents

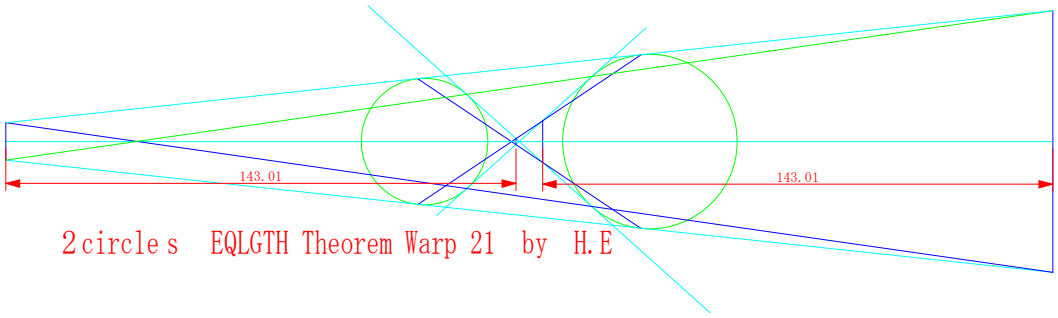
We shared therefore
We were.
Thanks a lot

Diary Memo

残念ながら、我々は、離れることになった。ありがとう。マリアさん。理想と情熱の企画は、これで最後。今後は、愛と理想を一人で、今まで通りことにする。悲しい定め。皆さんご勘弁を。
今回の数表が、物語っているかも

寂しさや　芽生えた葉には　花の数

by　H.E



2circles　EQLGTH Theorem Warp 21　by　H.E

（HEX63）

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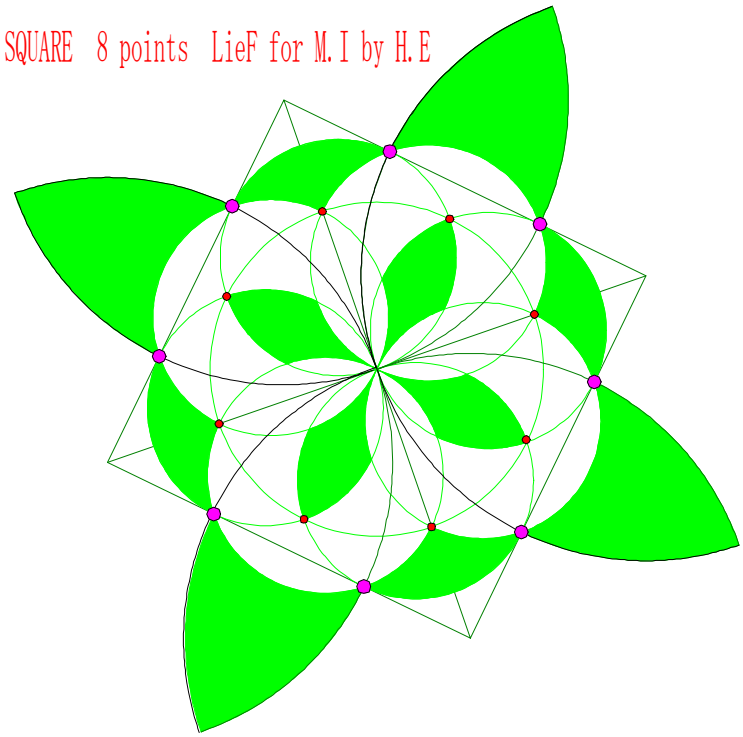
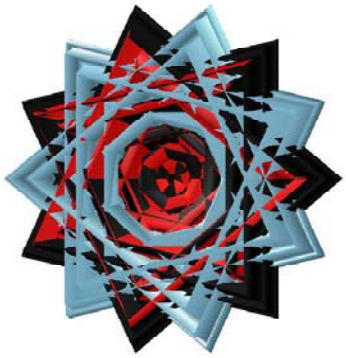
2013-４－２９

2. on SQUARE THEOREM in Geometry by H.E



CUT PI CUT STAR ROSE byH.E
4*cos(876548*u)*sin(cos(h*v)) :
y := sin(876548*v)^e*cos(7654*v)^2 : z := 4*sin(876548*u)*sin(cos(h*v)) :



3 . Number Table "Peace"

```
> x := 0 : for p from 7 to 7 do for m from 2 to 100 do MHPH := 0 : MHP := 0 :for h from 1
    to 7 do MHPH := MHPH + m^h + (p)^h : MHP := MHP + m^h + (h)^p :od:
    if isprime(MHPH) then x := x + 1 : print([ seq([m]^j + [p]^j, j = 1..p) ]
    = peace Sum prime(x) · [m] · [MHPH] )fi:if isprime(MHP) then x := x + 1 :
    print([ seq([m]^j + [j]^p, j = 1..p) ] = peace Sum prime(x) · [m] · [MHP] )fi:od:od:
[[11], [4]^2 + [7]^2, [4]^3 + [7]^3, [4]^4 + [7]^4, [4]^5 + [7]^5, [4]^6 + [7]^6, [4]^7 + [7]^7]
    = peace Sum prime(1) [4] [982643]
[[13], [6]^2 + [7]^2, [6]^3 + [7]^3, [6]^4 + [7]^4, [6]^5 + [7]^5, [7]^6 + [6]^6, [6]^7 + [7]^7]
    = peace Sum prime(2) [6] [1296721]
[[9] + [1]^7, [9]^2 + [2]^7, [9]^3 + [3]^7, [9]^4 + [4]^7, [9]^5 + [5]^7, [9]^6 + [6]^7, [9]^7 + [7]^7]
    = peace Sum prime(3) [9] [6581143]
[[27] + [1]^7, [27]^2 + [2]^7, [27]^3 + [3]^7, [27]^4 + [4]^7, [27]^5 + [5]^7, [27]^6 + [6]^7, [27]^7
    + [7]^7] = peace Sum prime(4) [27] [10863874783]
[[33] + [1]^7, [33]^2 + [2]^7, [33]^3 + [3]^7, [33]^4 + [4]^7, [33]^5 + [5]^7, [33]^6 + [6]^7, [33]^7
    + [7]^7] = peace Sum prime(5) [33] [43951469623]
[[45] + [1]^7, [45]^2 + [2]^7, [45]^3 + [3]^7, [45]^4 + [4]^7, [45]^5 + [5]^7, [45]^6 + [6]^7, [45]^7
    + [7]^7] = peace Sum prime(6) [45] [382163140999]
[[55], [48]^2 + [7]^2, [48]^3 + [7]^3, [48]^4 + [7]^4, [48]^5 + [7]^5, [48]^6 + [7]^6, [48]^7 + [7]^7]
    = peace Sum prime(7) [48] [599560118863]
[[55] + [1]^7, [55]^2 + [2]^7, [55]^3 + [3]^7, [55]^4 + [4]^7, [55]^5 + [5]^7, [55]^6 + [6]^7, [55]^7
    + [7]^7] = peace Sum prime(8) [55] [1550629679759]
[[73], [66]^2 + [7]^2, [66]^3 + [7]^3, [66]^4 + [7]^4, [66]^5 + [7]^5, [66]^6 + [7]^6, [66]^7 + [7]^7]
    = peace Sum prime(9) [66] [5539087211101]
[[103], [96]^2 + [7]^2, [96]^3 + [7]^3, [96]^4 + [7]^4, [96]^5 + [7]^5, [96]^6 + [7]^6, [96]^7          (1)
    + [7]^7] = peace Sum prime(10) [96] [75935746116991]
> x := 0 : for p from 1 to 7 do for m from 2 to 100 do MPH := 0 : MPHP := 0 :for h from 1
    to 7 do MPH := MPH + m^p + (p)^h : MPHP := MPHP + m^p + (h)^p :od:
    if isprime(MPH) then x := x + 1 : print([ seq([m]^p + [p]^j, j = 1..p) ]
    = peace Sum prime(x) · [m] · [MPH] )fi:if isprime(MPHP) then x := x + 1 :
    print([ seq([m]^p + [j]^p, j = 1..p) ] = peace Sum prime(x) · [m] · [MPHP] )fi:od:od:
          [[3]^2 + [2], [3]^2 + [2]^2] = peace Sum prime(1) [3] [317]
          [[9]^2 + [2], [9]^2 + [2]^2] = peace Sum prime(2) [9] [821]
        [[33]^2 + [2], [33]^2 + [2]^2] = peace Sum prime(3) [33] [7877]
        [[51]^2 + [2], [51]^2 + [2]^2] = peace Sum prime(4) [51] [18461]
        [[69]^2 + [2], [69]^2 + [2]^2] = peace Sum prime(5) [69] [33581]
        [[81]^2 + [2], [81]^2 + [2]^2] = peace Sum prime(6) [81] [46181]
      [[4]^3 + [3], [4]^3 + [3]^2, [4]^3 + [3]^3] = peace Sum prime(7) [4] [3727]
      [[8]^3 + [3], [8]^3 + [3]^2, [8]^3 + [3]^3] = peace Sum prime(8) [8] [6863]
    [[26]^3 + [3], [26]^3 + [3]^2, [26]^3 + [3]^3] = peace Sum prime(9) [26] [126311]
    [[28]^3 + [3], [28]^3 + [3]^2, [28]^3 + [3]^3] = peace Sum prime(10) [28] [156943]
    [[40]^3 + [3], [40]^3 + [3]^2, [40]^3 + [3]^3] = peace Sum prime(11) [40] [451279]
```

$$[[50]^3+[3],[50]^3+[3]^2,[50]^3+[3]^3]=peace\,Sum\,prime(12)\,[50]\,[878279]$$
$$[[76]^3+[3],[76]^3+[3]^2,[76]^3+[3]^3]=peace\,Sum\,prime(13)\,[76]\,[3076111]$$
$$[[80]^3+[3],[80]^3+[3]^2,[80]^3+[3]^3]-peace\,Sum\,prime(14)\,[80]\,[3587279]$$
$$[[7]^4+[4],[7]^4+[4]^2,[7]^4+[4]^3,[7]^4+[4]^4]=peace\,Sum\,prime(15)\,[7]\,[38651]$$
$$[[25]^4+[4],[25]^4+[4]^2,[25]^4+[4]^3,[25]^4+[4]^4]$$
$$-peace\,Sum\,prime(16)\,[25]\,[2756219]$$
$$[[33]^4+[4],[33]^4+[4]^2,[33]^4+[4]^3,[33]^4+[4]^4]$$
$$=peace\,Sum\,prime(17)\,[33]\,[8323291]$$
$$[[41]^4+[4],[41]^4+[4]^2,[41]^4+[4]^3,[41]^4+[4]^4]$$
$$-peace\,Sum\,prime(18)\,[41]\,[19802171]$$
$$[[45]^4+[4],[45]^4+[4]^2,[45]^4+[4]^3,[45]^4+[4]^4]$$
$$=peace\,Sum\,prime(19)\,[45]\,[28726219]$$
$$[[47]^4+[4],[47]^4+[4]^2,[47]^4+[4]^3,[47]^4+[4]^4]$$
$$-peace\,Sum\,prime(20)\,[47]\,[34179611]$$
$$[[51]^4+[4],[51]^4+[4]^2,[51]^4+[4]^3,[51]^4+[4]^4]$$
$$=peace\,Sum\,prime(21)\,[51]\,[47378251]$$
$$[[55]^4+[4],[55]^4+[4]^2,[55]^4+[4]^3,[55]^4+[4]^4]$$
$$=peace\,Sum\,prime(22)\,[55]\,[64076219]$$
$$[[83]^4+[4],[83]^4+[4]^2,[83]^4+[4]^3,[83]^4+[4]^4]$$
$$=peace\,Sum\,prime(23)\,[83]\,[332230091]$$
$$[[85]^4+[4],[85]^4+[4]^2,[85]^4+[4]^3,[85]^4+[4]^4]$$
$$-peace\,Sum\,prime(24)\,[85]\,[365426219]$$
$$[[2]^5+[5],[2]^5+[5]^2,[2]^5+[5]^3,[2]^5+[5]^4,[2]^5+[5]^5]$$
$$=peace\,Sum\,prime(25)\,[2]\,[97879]$$
$$[[12]^5+[5],[12]^5+[5]^2,[12]^5+[5]^3,[12]^5+[5]^4,[12]^5+[5]^5]$$
$$=peace\,Sum\,prime(26)\,[12]\,[1839479]$$
$$[[24]^5+[5],[24]^5+[5]^2,[24]^5+[5]^3,[24]^5+[5]^4,[24]^5+[5]^5]$$
$$=peace\,Sum\,prime(27)\,[24]\,[55836023]$$
$$[[26]^5+[5],[26]^5+[5]^2,[26]^5+[5]^3,[26]^5+[5]^4,[26]^5+[5]^5]$$
$$=peace\,Sum\,prime(28)\,[26]\,[83267287]$$
$$[[36]^5+[5],[36]^5+[5]^2,[36]^5+[5]^3,[36]^5+[5]^4,[36]^5+[5]^5]$$
$$=peace\,Sum\,prime(29)\,[36]\,[423360887]$$
$$[[48]^5+[5],[48]^5+[5]^2,[48]^5+[5]^3,[48]^5+[5]^4,[48]^5+[5]^5]$$
$$=peace\,Sum\,prime(30)\,[48]\,[1783725431]$$
$$[[56]^5+[5],[56]^5+[5]^2,[56]^5+[5]^3,[56]^5+[5]^4,[56]^5+[5]^5]$$
$$=peace\,Sum\,prime(31)\,[56]\,[3855220087]$$
$$[[74]^5+[5],[74]^5+[5]^2,[74]^5+[5]^3,[74]^5+[5]^4,[74]^5+[5]^5]$$
$$=peace\,Sum\,prime(32)\,[74]\,[15533144023]$$
$$[[86]^5+[5],[86]^5+[5]^2,[86]^5+[5]^3,[86]^5+[5]^4,[86]^5+[5]^5]$$
$$=peace\,Sum\,prime(33)\,[86]\,[32929988887]$$
$$[[5]^6+[6],[5]^6+[6]^2,[5]^6+[6]^3,[5]^6+[6]^4,[5]^6+[6]^5,[5]^6+[6]^6]$$

$$= peace\,Sum\,prime(34)\ [5]\ [445297]$$

$$[[9]^6 + [1]^6, [9]^6 + [2]^6, [9]^6 + [3]^6, [9]^6 + [4]^6, [9]^6 + [5]^6, [9]^6 + [6]^6]$$

$$= peace\,Sum\,prime(35)\ [9]\ [3904907]$$

$$[[21]^6 + [1]^6, [21]^6 + [2]^6, [21]^6 + [3]^6, [21]^6 + [4]^6, [21]^6 + [5]^6, [21]^6 + [6]^6]$$

$$= peace\,Sum\,prime(36)\ [21]\ [600547667]$$

$$[[25]^6 + [6], [25]^6 + [6]^2, [25]^6 + [6]^3, [25]^6 + [6]^4, [25]^6 + [6]^5, [25]^6 + [6]^6]$$

$$= peace\,Sum\,prime(37)\ [25]\ [1709320297]$$

$$[[29]^6 + [6], [29]^6 + [6]^2, [29]^6 + [6]^3, [29]^6 + [6]^4, [29]^6 + [6]^5, [29]^6 + [6]^6]$$

$$= peace\,Sum\,prime(38)\ [29]\ [4164099169]$$

$$[[35]^6 + [6], [35]^6 + [6]^2, [35]^6 + [6]^3, [35]^6 + [6]^4, [35]^6 + [6]^5, [35]^6 + [6]^6]$$

$$= peace\,Sum\,prime(39)\ [35]\ [12868195297]$$

$$[[41]^6 + [6], [41]^6 + [6]^2, [41]^6 + [6]^3, [41]^6 + [6]^4, [41]^6 + [6]^5, [41]^6 + [6]^6]$$

$$= peace\,Sum\,prime(40)\ [41]\ [33251065609]$$

$$[[49]^6 + [6], [49]^6 + [6]^2, [49]^6 + [6]^3, [49]^6 + [6]^4, [49]^6 + [6]^5, [49]^6 + [6]^6]$$

$$= peace\,Sum\,prime(41)\ [49]\ [96889346329]$$

$$[[51]^6 + [1]^6, [51]^6 + [2]^6, [51]^6 + [3]^6, [51]^6 + [4]^6, [51]^6 + [5]^6, [51]^6 + [6]^6]$$

$$= peace\,Sum\,prime(42)\ [51]\ [123174199427]$$

$$[[59]^6 + [6], [59]^6 + [6]^2, [59]^6 + [6]^3, [59]^6 + [6]^4, [59]^6 + [6]^5, [59]^6 + [6]^6]$$

$$= peace\,Sum\,prime(43)\ [59]\ [295264071409]$$

$$[[63]^6 + [1]^6, [63]^6 + [2]^6, [63]^6 + [3]^6, [63]^6 + [4]^6, [63]^6 + [5]^6, [63]^6 + [6]^6]$$

$$= peace\,Sum\,prime(44)\ [63]\ [437664700283]$$

$$[[69]^6 + [1]^6, [69]^6 + [2]^6, [69]^6 + [3]^6, [69]^6 + [4]^6, [69]^6 + [5]^6, [69]^6 + [6]^6]$$

$$= peace\,Sum\,prime(45)\ [69]\ [755427326387]$$

$$[[95]^6 + [6], [95]^6 + [6]^2, [95]^6 + [6]^3, [95]^6 + [6]^4, [95]^6 + [6]^5, [95]^6 + [6]^6]$$

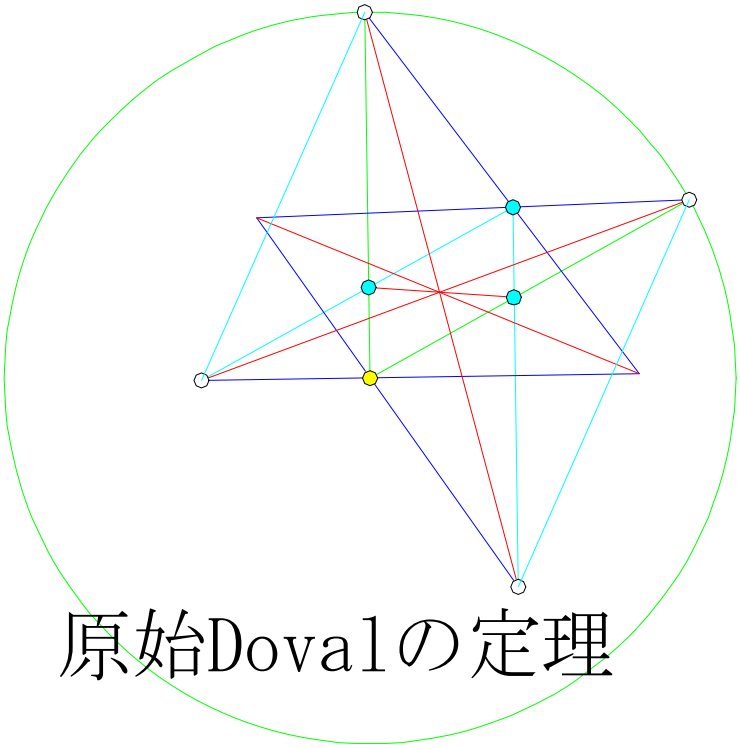
$$= peace\,Sum\,prime(46)\ [95]\ [5145643570297]$$

$$[[99]^6 + [1]^6, [99]^6 + [2]^6, [99]^6 + [3]^6, [99]^6 + [4]^6, [99]^6 + [5]^6, [99]^6 + [6]^6] \qquad (2)$$

$$= peace\,Sum\,prime(47)\ [99]\ [6590361230627]$$

>

４　原始動張るの定理



原始Dovalの定理

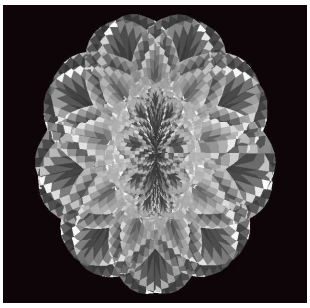
数学日記

geoMathe Diary 33th

IDEAL and Passion No.6

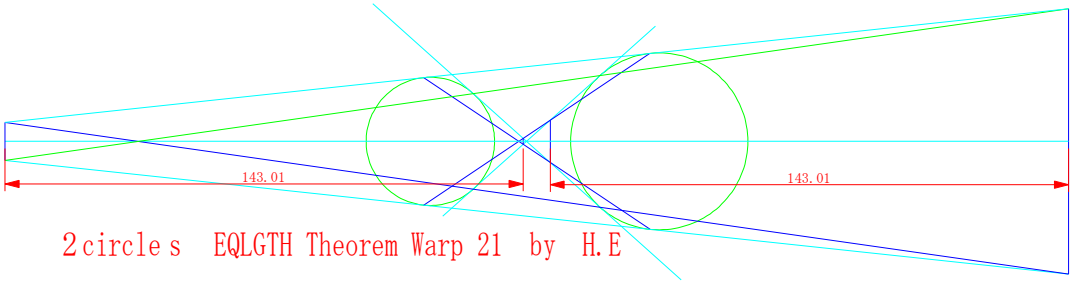
Hirota-k-a:key author, Mar-i-a:interpritor author
Ebisui : Editor, Intagliata :Imager

Peace



contents

4/30 筆者を以上のように決めた。
32th は、都合上一人で、創った。
33th からまた共同作業がはじまった。
このページは毎回、単独で、前広告としてオープンする。２９ｔｈで書いたスチックメモリーが出てきた.やれやれ。
今回から、私が、いつもここを担当することにする。表題の３Ｄは、私も創りたいので交代で創る.IMAGER が上であるが。(H.E)

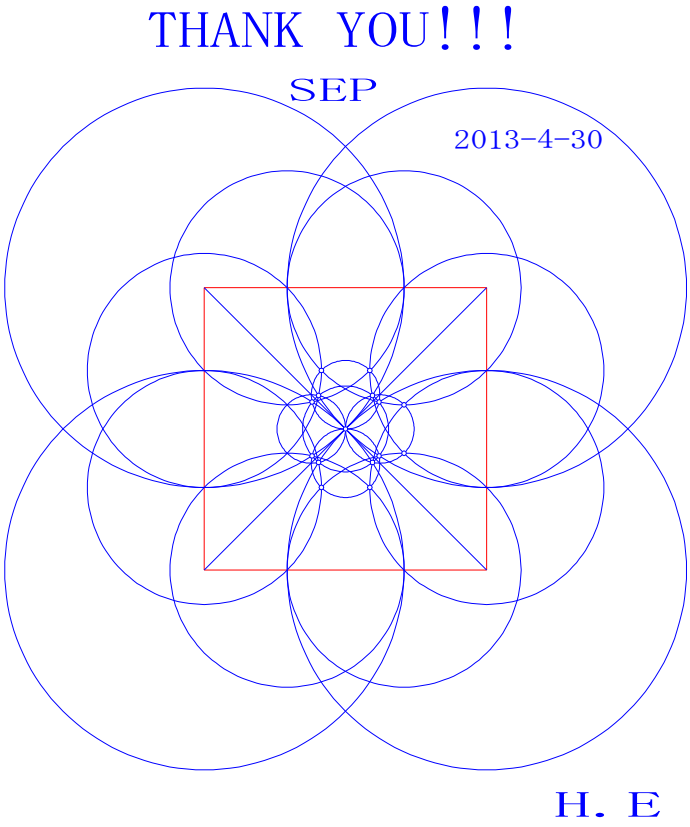


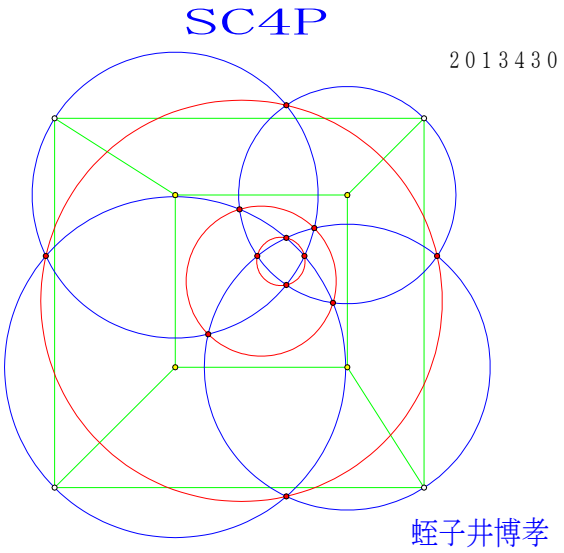
2circles EQLGTH Theorem Warp 21 by H.E

卵形線研究センター
http://hoval.blogzine.jp/geomathe_garden_by_85/

2013 5-5

2 On Square Theorem In Geometry





3 NUMTAB DIGIT NUMBER Probrem DNP 11927（31cn/88 26th） by H.E

> # DIGIT NUMBER PI EXP PI-EXP by H.E:

[1] DIGIT NUMBER

$$\left[\Pi\left(1_{th_1\ ZpDg}\right)=1,\ "-",\ EXP\left(1_{th}+[1]\ zeropoint\ digits\right)=7\right]=-6$$

$$\left[\Pi\left(2_{th_1\ ZpDg}\right)=4,\ "-",\ EXP\left(2_{th}+[1]\ zeropoint\ digits\right)=1\right]=3$$

$$[th\ prime(\Pi-EXP)]=3$$

$$\left[\Pi\left(3_{th_1\ ZpDg}\right)=1,\ "-",\ EXP\left(3_{th}+[1]\ zeropoint\ digits\right)=8\right]=-7$$

$$\left[\Pi\left(4_{th_1\ ZpDg}\right)=5,\ "-",\ EXP\left(4_{th}+[1]\ zeropoint\ digits\right)=2\right]=3$$

$$[3\ th\ prime(\Pi-EXP)]=3$$

$$\left[\Pi\left(5_{th_1\ ZpDg}\right)=9,\ "-",\ EXP\left(5_{th}+[1]\ zeropoint\ digits\right)=8\right]=1$$

$$\left[\Pi\left(6_{th_1\ ZpDg}\right)=2,\ "-",\ EXP\left(6_{th}+[1]\ zeropoint\ digits\right)=1\right]=1$$

$$\left[\Pi\left(7_{th_1\ ZpDg}\right)=6,\ "-",\ EXP\left(7_{th}+[1]\ zeropoint\ digits\right)=8\right]=-2$$

$$\left[\Pi\left(8_{th_1\ ZpDg}\right)=5,\ "-",\ EXP\left(8_{th}+[1]\ zeropoint\ digits\right)=2\right]=3$$

$$[7\ th\ prime(\Pi-EXP)]=3$$

$$\left[\Pi\left(9_{th_1\ ZpDg}\right)=3,\ "-",\ EXP\left(9_{th}+[1]\ zeropoint\ digits\right)=8\right]=-5$$

$$\left[\Pi\left(10_{th_1\ ZpDg}\right)=5,\ "-",\ EXP\left(10_{th}+[1]\ zeropoint\ digits\right)=4\right]=1 \qquad (1)$$

> ----------

[2] DIGIT NUMBER

$$\left[\Pi\left(1_{th_2\ ZpDg}\right)=14,\ "-",\ EXP\left(1_{th}+[2]\ zeropoint\ digits\right)=71\right]=-57$$

$$\left[\Pi\left(3_{th_2\ ZpDg}\right)=15,\ "-",\ EXP\left(3_{th}+[2]\ zeropoint\ digits\right)=82\right]=-67$$

$$\left[\Pi\left(5_{th_2\ ZpDg}\right)=92,\ "-",\ EXP\left(5_{th}+[2]\ zeropoint\ digits\right)=81\right]=11$$

$$[4\ th\ prime(\Pi-EXP)]=11$$

$$\left[\Pi\left(7_{th_2\ ZpDg}\right)=65,\ "-",\ EXP\left(7_{th}+[2]\ zeropoint\ digits\right)=82\right]=-17$$

$$\left[\Pi\left(9_{th_2\ ZpDg}\right)=35,\ "-",\ EXP\left(9_{th}+[2]\ zeropoint\ digits\right)=84\right]=-49$$

$$\left[\Pi\left(11_{th_2\ ZpDg}\right)=89,\ "-",\ EXP\left(11_{th}+[2]\ zeropoint\ digits\right)=59\right]=30$$

$$\left[\Pi\left(13_{th_2\ ZpDg}\right)=79,\ "-",\ EXP\left(13_{th}+[2]\ zeropoint\ digits\right)=4\right]=75$$

$$\left[\Pi\left(15_{th_2\ ZpDg}\right)=32,\ "-",\ EXP\left(15_{th}+[2]\ zeropoint\ digits\right)=52\right]=-20$$

$$\left[\Pi\left(17_{th_2\ ZpDg}\right)=38,\ "-",\ EXP\left(17_{th}+[2]\ zeropoint\ digits\right)=35\right]=3$$

$$[16\ th\ prime(\Pi-EXP)]-3$$

[10] *DIGIT NUMBER*

[11] *DIGIT NUMBER*

[12] *DIGIT NUMBER*

[13] *DIGIT NUMBER*

$$\left[DIGIT\,NUMBER\left(\Pi - EXP\right)^{(37\,cn)}_{Prime(66)\,th}\right] = 3739775932661$$

[14] *DIGIT NUMBER*

[15] *DIGIT NUMBER*

[16] *DIGIT NUMBER*

$$\left[DIGIT\,NUMBER\left(\Pi - EXP\right)^{(38\,cn)}_{Prime(81)\,th}\right] = 4056652646816951$$

[17] *DIGIT NUMBER*

[18] *DIGIT NUMBER*

$$\left[DIGIT\,NUMBER\left(\Pi - EXP\right)^{(39\,cn)}_{Prime(19)\,th}\right] = 1023559119268403 87$$

[19] *DIGIT NUMBER*

[20] *DIGIT NUMBER*

[21] *DIGIT NUMBER*

[22] *DIGIT NUMBER*

[23] *DIGIT NUMBER*

[24] *DIGIT NUMBER*

[25] *DIGIT NUMBER*

[26] *DIGIT NUMBER*

[27] *DIGIT NUMBER*

[28] *DIGIT NUMBER*

[29] *DIGIT NUMBER*

$$\left[DIGIT\,NUMBER(\Pi - EXP)^{(19\ cn)}_{Prime(75)\ th}\right] = 3$$

$$\left[\Pi\left(76_{th_1\ ZpDg}\right) = 2,\ \text{"-"},\ EXP\left(76_{th + [1]\ zeropoint\ digits}\right) = 5\right] = -3$$

$$\left[\Pi\left(77_{th_1\ ZpDg}\right) = 0,\ \text{"-"},\ EXP\left(77_{th + [1]\ zeropoint\ digits}\right) = 4\right] = -4$$

$$\left[\Pi\left(78_{th_1\ ZpDg}\right) = 8,\ \text{"-"},\ EXP\left(78_{th + [1]\ zeropoint\ digits}\right) = 7\right] = 1$$

$$\left[\Pi\left(79_{th_1\ ZpDg}\right) = 9,\ \text{"-"},\ EXP\left(79_{th + [1]\ zeropoint\ digits}\right) = 5\right] = 4$$

$$\left[\Pi\left(80_{th_1\ ZpDg}\right) = 9,\ \text{"-"},\ EXP\left(80_{th + [1]\ zeropoint\ digits}\right) = 9\right] = 0$$

$$\left[\Pi\left(81_{th_1\ ZpDg}\right) = 8,\ \text{"-"},\ EXP\left(81_{th + [1]\ zeropoint\ digits}\right) = 4\right] = 4$$

$$\left[\Pi\left(82_{th_1\ ZpDg}\right) = 6,\ \text{"-"},\ EXP\left(82_{th + [1]\ zeropoint\ digits}\right) = 5\right] = 1$$

$$\left[\Pi\left(83_{th_1\ ZpDg}\right) = 2,\ \text{"-"},\ EXP\left(83_{th + [1]\ zeropoint\ digits}\right) = 7\right] = -5$$

$$\left[\Pi\left(84_{th_1\ ZpDg}\right) = 8,\ \text{"-"},\ EXP\left(84_{th + [1]\ zeropoint\ digits}\right) = 1\right] = 7$$

$$\left[DIGIT\,NUMBER(\Pi - EXP)^{(20\ cn)}_{Prime(84)\ th}\right] = 7$$

$$\left[11\left(85_{th_1\ ZpDg}\right) = 0,\ \text{"-"},\ EXP\left(85_{th + [1]\ zeropoint\ digits}\right) = 3\right] = -3$$

$$\left[\Pi\left(86_{th_1\ ZpDg}\right) = 3,\ \text{"-"},\ EXP\left(86_{th + [1]\ zeropoint\ digits}\right) = 8\right] = -5$$

$$\left[\Pi\left(87_{th_1\ ZpDg}\right) = 4,\ \text{"-"},\ EXP\left(87_{th + [1]\ zeropoint\ digits}\right) = 2\right] = 2$$

$$\left[DIGIT\,NUMBER(\Pi - EXP)^{(21\ cn)}_{Prime(87)\ th}\right] = 2$$

$$\left[\Pi\left(88_{th_1\ ZpDg}\right) = 8,\ \text{"-"},\ EXP\left(88_{th + [1]\ zeropoint\ digits}\right) = 1\right] = 7$$

$$\left[DIGIT\,NUMBER(\Pi - EXP)^{(22\ cn)}_{Prime(88)\ th}\right] - 7$$

$$\left[\Pi\left(89_{th_1\ ZpDg}\right) = 2,\ \text{"-"},\ EXP\left(89_{th + [1]\ zeropoint\ digits}\right) = 7\right] = -5$$

$$[2]\,DIGIT\,NUMBER$$

$$\left[\Pi\left(1_{th_2\ ZpDg}\right) = 14,\ \text{"-"},\ EXP\left(1_{th + [2]\ zeropoint\ digits}\right) = 71\right] = -57$$

$$\left[\Pi\left(3_{th_2\ ZpDg}\right) = 15,\ \text{"-"},\ EXP\left(3_{th + [2]\ zeropoint\ digits}\right) = 82\right] = -67$$

$$\left[\Pi\left(5_{th_2\ ZpDg}\right) = 92,\ \text{"-"},\ EXP\left(5_{th + [2]\ zeropoint\ digits}\right) = 81\right] = 11$$

$$\left[DIGIT\,NUMBER(\Pi - EXP)^{(23\ cn)}_{Prime(5)\ th}\right] = 11$$

$$\left[\Pi\left(7_{th_2\ ZpDg}\right) = 65,\ \text{"-"},\ EXP\left(7_{th + [2]\ zeropoint\ digits}\right) = 82\right] = -17$$

$$\left[\Pi\left(9_{th_2\ ZpDg}\right) = 35,\ \text{"-"},\ EXP\left(9_{th + [2]\ zeropoint\ digits}\right) = 84\right] = -49$$

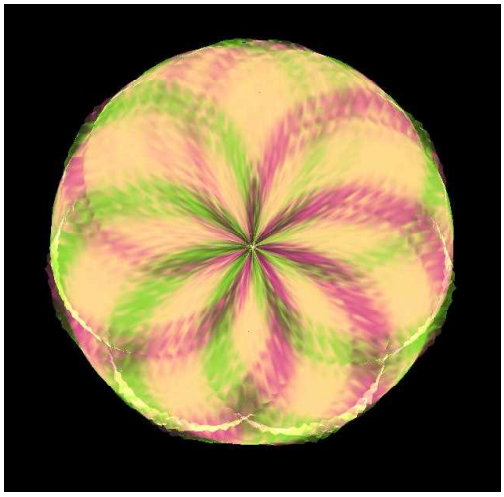
4　3 D EQG by M.I

GLASSFLOWER

X=pi^(1+ 0.6*cos(7*u+5*v)*cos(4*u+3*v))
Y=sin(u)*sin(v)^3
Z=(1+ 0.6*cos(u))*sin(v)

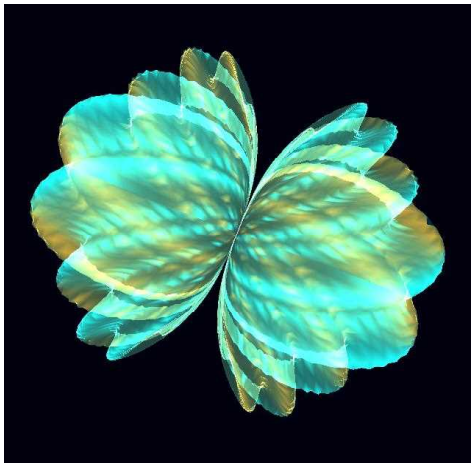
BALL FLOWER1

X=0.012*pi^cos(cos(29*u+20*v))
*cos(18*v+17*u)　*pi^cos(7*u+5*v)
*cos(4*u+3*v)
Y=sin(u)*sin(v)
Z=cos(u)*sin(v)



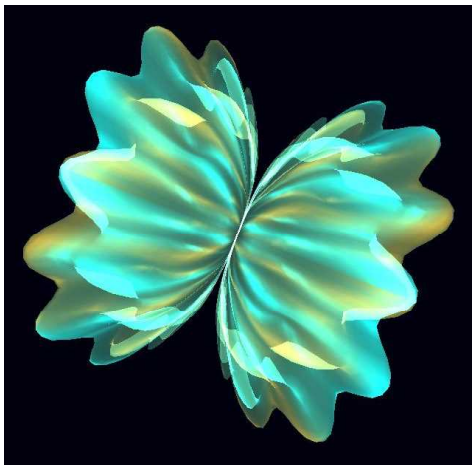
BUTTERFLYFLOWER

x = (0.6+ 0.6*cos(7*u+5*v)*0.8*cos(4*u+3*v))^2
y = sin(u)*sin(v)
z = (0.6+ 0.6*cos(u))*sin(v)^3



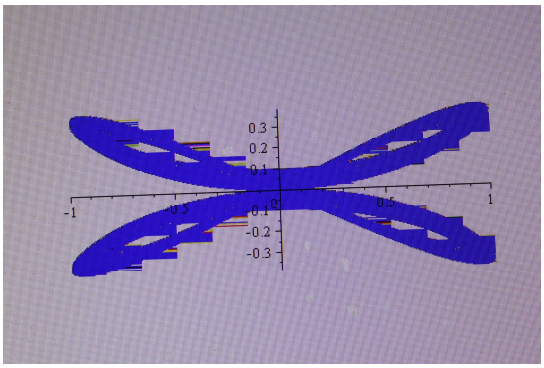
BUTTERFLYFLOWER1

x = (0.6+ 0.6*cos(7*u-5*v)*0.8*cos(4*u+3*v))^2
y =　sin(u)*sin(v)
z =　(0.6+ 0.6*cos(u))*sin(v)^3

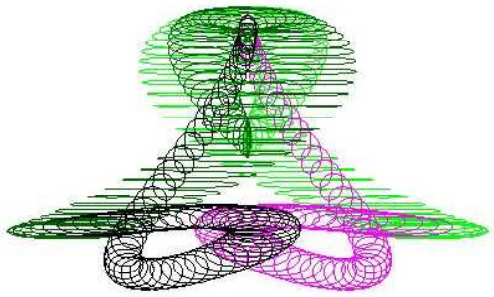


5　2 D by H.E

DNP DNA 11927



Pachikuri DATE SUIKA by H.E



蛭子井博孝作 (P.21/80)

2012-9-16 Pachikuri 台風雲のいろいろを思いながら

Pachikuri Date 916台風神心の雲情　by H.E

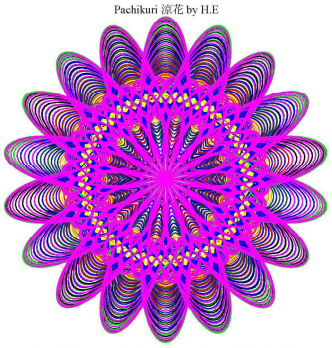
$$BGT = \text{"09-16 (11:51:09 AM)"},\ [21],\ HEB = [5, 2, 1]$$

$$X = \sin\left(\frac{229}{4}\ t\right) + \sin(229\ t)\cos\left(\frac{1145}{2}\ t\right)\cos\left(\cos\left(\frac{t}{1+t}\right)\right)$$

$$Y = \cos\left(\frac{229}{4}\ t\right) + \cos(229\ t)\cos\left(\frac{1145}{2}\ t\right)\cos\left(\cos\left(\frac{t}{1+t}\right)\right)$$

$$\left[t = 0..2\,\pi,\ st = \frac{1}{10}\right],\ 蛭子井博孝$$

Pachikuri 涼花 by H.E



$$BGT = \text{"10-08 (04:44:40 PM)"},\ No = [199],\ HEB = [7, 5, 2, 18]$$

$$X = \sin(427\ t) + \cos(1098\ t)\sin(427\ t)\cos(2196\ t)\sin(\tan(\cos(\cos(t) + \sin(t))))$$

$$Y = \cos(427\ t) + \cos(1098\ t)\cos(427\ t)\cos(2196\ t)\sin(\tan(\cos(\cos(t) + \sin(t))))$$

$$\left[t = 0..2\,\pi,\ st = \frac{1}{10}\right],\ 蛭子井博孝$$

6　NUMBER

数について、日頃思っていることを書く。人には、誕生日がある
たとえば、4 月 20 日と 7 月 17 日　7 - 4 =20-17=3　相性がいいようだ。
　この数には、こんな関係もある。
7^3*X+17^3*(56+n) ＝ 4^3*6+20^3*(34+n)
数表を数式処理ソフトで簡単にできる時代。4，5 節にある数からできる EQG のいろいろをご覧下さい。数の世界は、1 兆桁の円周率を始め、1+2+3=6 の完全数、2^2^2+1=17 のフェルマ素数をその他いろいろである。1+1=2 の時代が 1+1=0 の時代に移り世界が変わりだした。その世界の不思議を皆さんとともに味わいたい

　ここに 2 人の画像を紹介させてもらいます.誕生日と表情に関係があるかご覧下さい。

I want to write what i think now about numbers. People have theiir bithday numbers.
for Example, 4 月 20 日と 7 月 17 日　7 - 4 =20-17=3　this may be nice combination
about this following relation exsist
7^3*X+17^3*(56+n) ＝ 4^3*6+20^3*(34+n)
now we can easyly make numTable useing nemerical soft. Let's see EQG by numbers in Section 4,5. In number field there are 10^12 digits Pi, 1+2+3=6 perfect number ,2^2^2+1=17 Ferma prime.etc.The history changes from 1+1=2 to 1+1=0
we want to Enjoy the world of number with yo.
　we show two photos. Waht do you think about the relaion between our face detail and birth day numbers. Enjoy numbers.　We are a little old .You can find the ages number.

Numeri by M.I

Trattare dei numeri non è semplice: ci vorrebbero fiumi di parole, senza tuttavia riuscire ad essere convincenti ed esaustivi. Quello che è certo è che essi sono dappertutto e servono a rappresentare in modo oggettivo la realtà che ci circonda. Lo diceva anche Pitagora, per il quale l'arché è nel numero, o meglio nell'uno, che è presente in tutti i numeri, anche nel senso di unicità, poiché ogni numero è unico, in quanto diverso da ogni altro.

I numeri, fin dall'antichità, hanno sempre affascinato l'uomo, che ne ha colto il senso di mistero, come dimostrano la cabala e la numerologia. Ed oggi ancor più lo attraggono, perché, come qualcuno ha detto, "i numeri possono arrivare a guidare perfino le nostre idee".

E che dire della loro bellezza? Il mondo dei numeri è un posto meraviglioso, variopinto e divertente, che purtroppo pochi privilegiati possono visitare. Un mondo sicuramente affascinante per Archimede, che nella sua opera "Arenario"dimostra di sfidare pregiudizi e limiti del pensiero a lui contemporaneo e riesce a dare nome a grandi numeri capaci di contare, non solo i granelli di sabbia di Siracusa, ma anche molteplicità grandi quanto si vuole, con l'implicazione del concetto di infinito potenziale.

Che dire del legame dei numeri, come quelli di Fibonacci, con la bellezza di molte forme esistenti in natura? E del numero aureo, considerato fin dalla sua scoperta, la rappresentazione della legge universale dell'armonia, l'espressione matematica della bellezza e dell'eleganza? Non solo in architettura, ma anche in musica, come nelle fughe di Bach o nelle sonate di Mozart, per trionfare nella Sagra della Primavera di Strawinski.

Affascinante il legame di taluni numeri tra loro, come "e, i, π, 1 e 0 " nell'identità di Eulero, la più bella della matematica.

C'è poi il fascino della teoria dei numeri primi, così intrigante che spinge oltre ogni limite la passione di tanti matematici, che si avventurano alla ricerca di numeri primi sempre più grandi e di eventuali leggi e proprietà che ne regolano la distribuzione.

Grandi passi sono stati compiuti dai vari matematici della Storia, e, grazie anche allo sviluppo dei computers e al continuo aggiornamento, oggi è stato possibile mostrare il più grande numero primo trovato finora.

In English

Numbers

Treat of numbers is not simple: it would take many words, but was unable to be convincing and exhaustive. What is certain is that they are everywhere and serve to represent the objective reality that surrounds us. It also said Pythagoras, for which the arché is in the number, or better in one, which is present in all the numbers, even in the sense of oneness, since each number is unique in that unlike any other.

The numbers, since ancient times, have always fascinated man, who has grasped the sense of mystery, as evidenced by the cabal and numerology. And today even more attract him, because, as someone said, "the numbers may even get to drive our ideas."

And what of their beauty? The world of numbers is wonderful, colorful and fun, which unfortunately privileged few can visit. A world certainly fascinating to Archimedes, who in his work "Arenario" proves to challenge prejudices and limitations of thought of his time and manages to give name to large numbers able to count not only the grains of sand in Syracuse, but also large multiplicity as it was, with the implication of the concept of potential infinite.

What about the relationship of numbers, such as Fibonacci, with the beauty of many forms that exist in nature? And the golden number, considered since its discovery, the representation of the universal law of harmony, the mathematical expression of beauty and elegance? Not only in architecture but also in music, as in Bach fugues or sonatas of Mozart, to triumph in the Rite of Spring by Stravinsky.

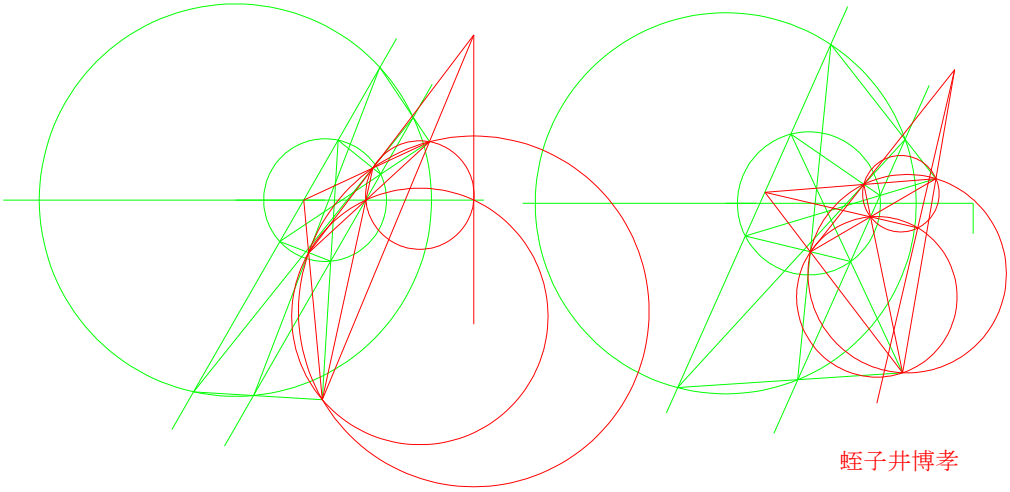
Charming the link of certain numbers between them, such as "e, i, π, 1, and 0" in the identity of Euler, the most beautiful of mathematics.

Then there is the charm of the theory of prime numbers, so intriguing that pushes beyond all the passion of many mathematicians, who venture out in search of ever larger primes and any laws and properties that govern thejr distribution.

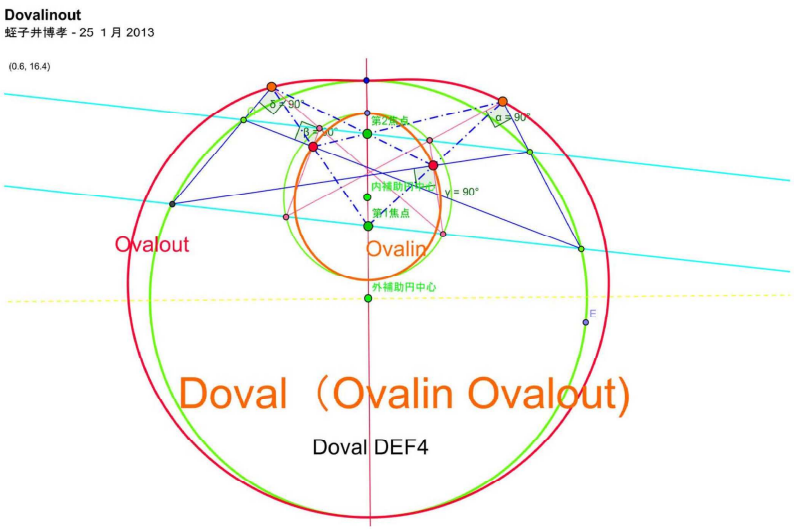
Great strides have been made by various mathematicians of history, and, thanks to the development of computers and continuous updating, now it was possible to show the largest prime number found so far

7 DOVAL

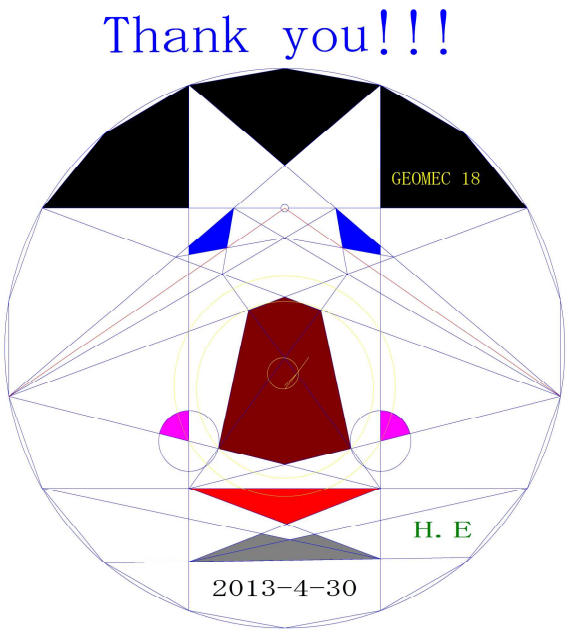
Doval and primitive Doval Property Compositions



蛭子井博孝



8　GEOMEC 18



Edit Summery

We are happy to finish our HMD（Hirotaka Maria Mathe Diary）.

Just, Enjoy Numbers　and EQG.

See you in next 34th. If we can,we make HMD.

Thank you!!!　　by H.E（5-2）

数学日記

geoMathe Diary 34th

IDEAL and Passion No. 7

Hirota-k-a:key author, Mar-i-a:interpritor author

Ebisui : Editor, Intagliata :Imager

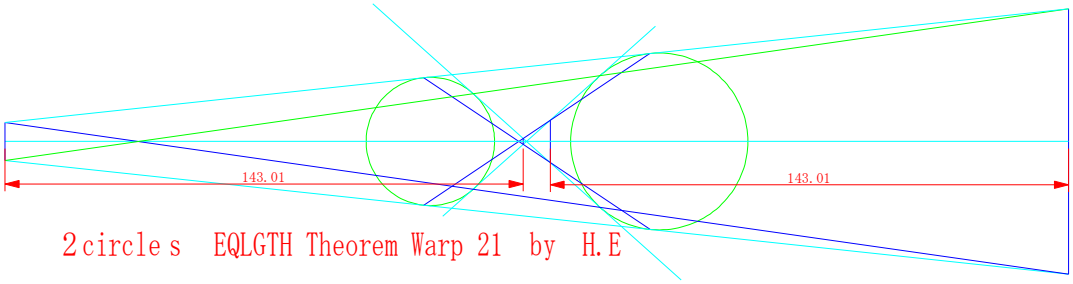
Star

Pris H.M.-Star (m eq) byH.E

by H.E

contents

５/２ ｛ｐ１｝＋２＝｛ｐ｝を考えついた.この式を満たす、双子素数は、無限個ある予想の証明が、この式に含まれているかも。 ３＋２＝５ ５＋２＝７が具体例。今回は、ある性質を持つ 2 連続素数表を創る。また、3D も、いろいろ工夫してゆく。平面の記事は、どんなものになるか。基本を考察する。連休 5/3、雨が上がり、日が照っている。新緑がみずみずしい。(H.E)



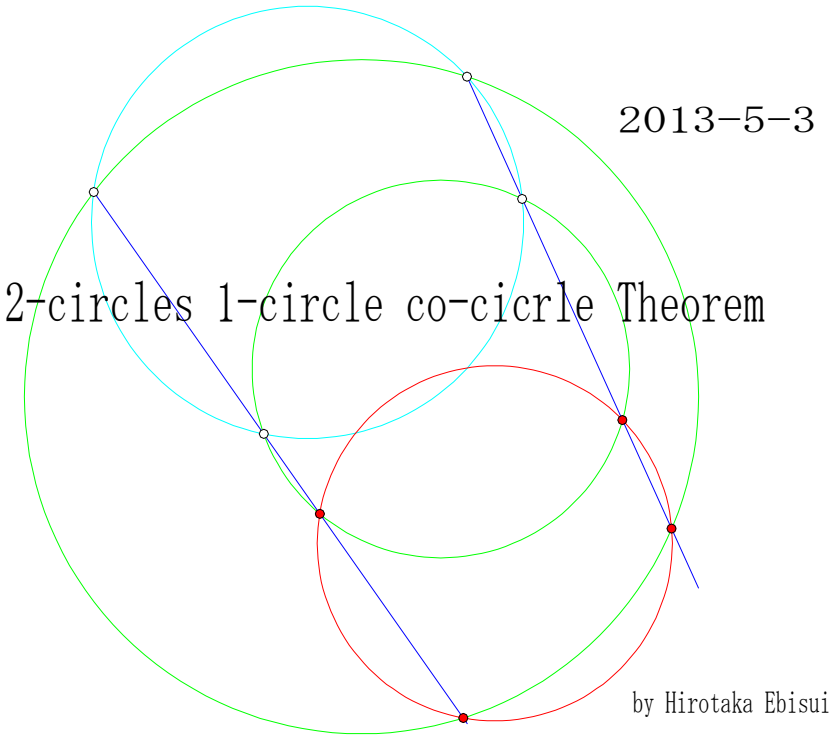
2circle s EQLGTH Theorem Warp 21 by H.E

卵形線研究センター

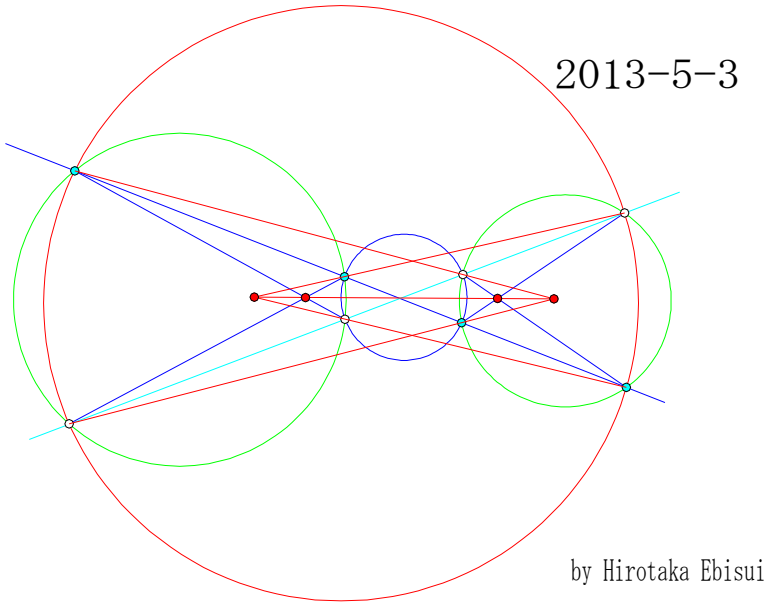
http://hoval.blogzine.jp/geomathe_garden_by_85/

2013 5-5

2　On 2 circles　Theorem In Geometry



2-circles 1-line collinear Theorem



3 NUMTAB "Prime Average is prime":

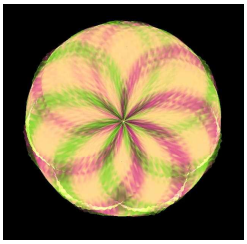
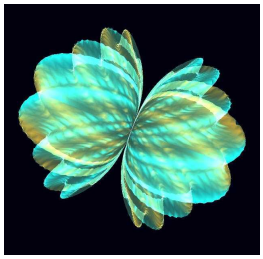
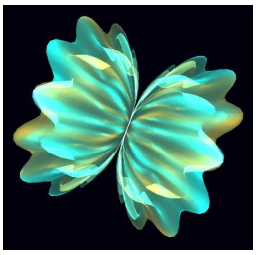
PAP[1,2];[1,4]are found [1,3]is not found by H.E

```
> #Number Table [P1, prime ave Prime ((P1+P2)/2), prime k jou ave Prime ((P1^k+P2^k)/2),
    P2] (k=2, 4) by H.E:
```

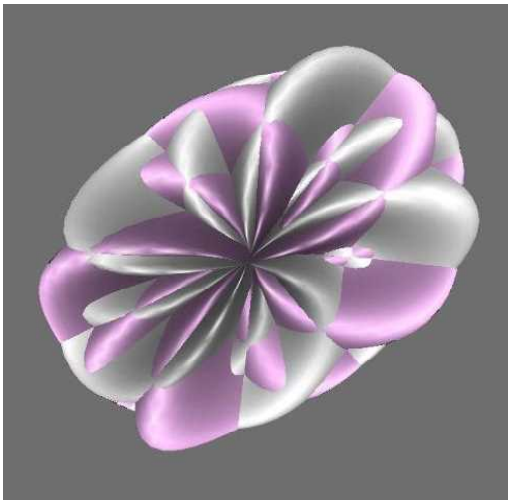
AVE primes SET (1) [[3], avep [5], avep^2 [29], [7]]
AVE primes SET (2) [[3], avep [13], avep^2 [269], [23]]
AVE primes SET (3) [[3], avep [23], avep^2 [929], [43]]
AVE primes SET (4) [[3], avep [43], avep^2 [3449], [83]]
AVE primes SET (5) [[3], avep [53], avep^2 [5309], [103]]
AVE primes SET (6) [[5], avep [11], avep^2 [157], [17]]
AVE primes SET (7) [[5], avep [17], avep^2 [433], [29]]
AVE primes SET (8) [[5], avep [23], avep^2 [853], [41]]
AVE primes SET (9) [[5], avep [53], avep^2 [5113], [101]]
AVE primes SET (10) [[5], avep [59], avep^2 [6397], [113]]
AVE primes SET (11) [[5], avep [71], avep^2 [9397], [137]]
AVE primes SET (12) [[5], avep [101], avep^2 [19417], [197]]
AVE primes SET (13) [[7], avep [37], avep^2 [2269], [67]]
AVE primes SET (14) [[7], avep [67], avep^2 [8089], [127]]
AVE primes SET (15) [[11], avep [71], avep^2 [8641], [131]]
AVE primes SET (16) [[11], avep [101], avep^2 [18301], [191]]
AVE primes SET (17) [[13], avep [43], avep^2 [2749], [73]]
AVE primes SET (18) [[23], avep [53], avep^2 [3709], [83]]
AVE primes SET (19) [[37], avep [97], avep^2 [13009], [157]]
AVE primes SET (20) [[43], avep [73], avep^2 [6229], [103]] **(1)**

AVE primes SET (1) [[3], avep [17], avep^4 [461801], [31]]
AVE primes SET (2) [[5], avep [11], avep^4 [42073], [17]]
AVE primes SET (3) [[7], avep [13], avep^4 [66361], [19]]
AVE primes SET (4) [[11], avep [29], avep^4 [2447161], [47]]
AVE primes SET (5) [[11], avep [47], avep^4 [23736481], [83]]
AVE primes SET (6) [[23], avep [41], avep^4 [6198601], [59]]
AVE primes SET (7) [[29], avep [41], avep^4 [4298881], [53]]
AVE primes SET (8) [[31], avep [37], avep^4 [2171161], [43]]
AVE primes SET (9) [[43], avep [61], avep^4 [21184441], [79]]
AVE primes SET (10) [[47], avep [59], avep^4 [15145681], [71]]
AVE primes SET (11) [[67], avep [73], avep^4 [29550601], [79]] **(2)**

4　3 D EQG by M.I

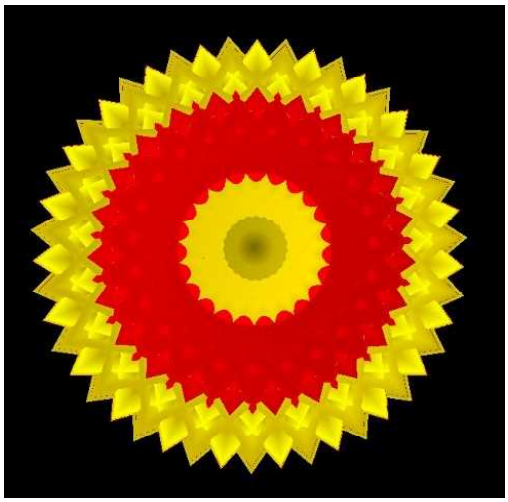





x=0.65*(sin(5*u-3*v)+0.9*cos(2*u)^2)*1.9*cos(v)
y=2.98*sin(u)*0.82*sin(v)
z=0.56*(sin(u)-2.9*cos(u))*1.54*sin(v)

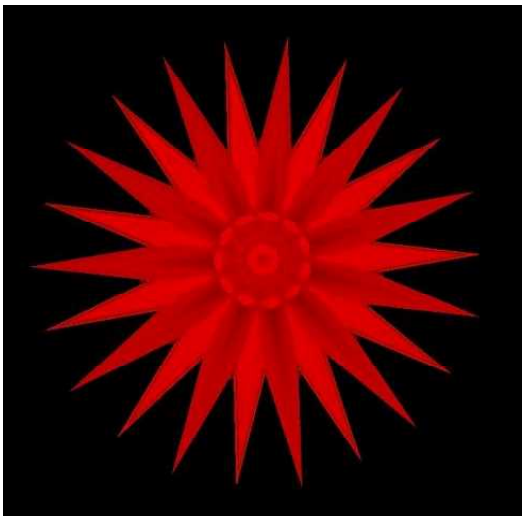
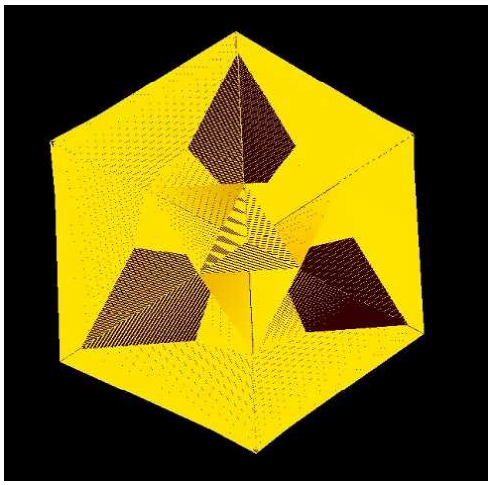


XYZ

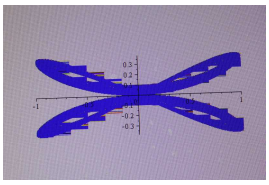
XYZ :x=7* cos(16* u)* sin(31187 *v)
y= sin(16* v) *cos(31187 *v)
z=7 *sin(16 *u) *sin(31187 *v)



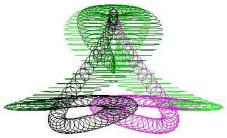
XYZ

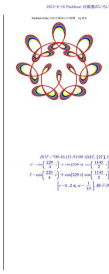



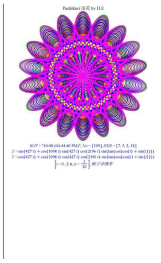
5　2 D(前回)　　3 D　by H.E



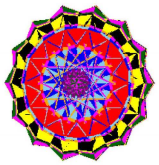
Pachikuri DATE SUIKA by H.E







Pachikuri 3D p112 420 ADD 2-Star　defined　by H.E



"Pachikuri 3D p115 420 ADD 2-Star by H.E", $No(12)$, $HM = [5, 11]$

$X_{12} = 7\cos(10\,u)\sin(11957\,v)$

$Y_{12} = \sin(10\,v)\cos(11957\,v)$

$Z_{12} = 7\sin(10\,u)\sin(11957\,v)$

Pachikuri 3D p112 420 ADD 2-Star　defined　by H.E

"Pachikuri 3D p115 420 ADD 2-Star by H.E", $No(22)$, $HM = [5, 13]$

$X_{22} = 7\cos(10\,u)\sin(1027\,v)$

$Y_{22} = \sin(10\,v)\cos(1027\,v)$

$Z_{22} = 7\sin(10\,u)\sin(1027\,v)$

Pachikuri 3D p112 420 ADD 2-Star　defined　by H.E

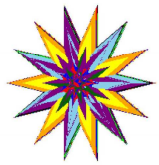
"Pachikuri 3D p115 420 ADD 2-Star by H.E", $No(31)$, $HM = [5, 13]$

$X_{31} = 7\cos(10\,u)\sin(17771\,v)$

$Y_{31} = \sin(10\,v)\cos(17771\,v)$

$Z_{31} = 7\sin(10\,u)\sin(17771\,v)$

Pachikuri 3D p112 420 ADD 2-Star　defined　by H.E



"Pachikuri 3D p115 420 ADD 2-Star by H.E", $No(63)$, $HM = [8, 13]$

$X_{63} = 7\cos(16\,u)\sin(14131\,v)$

$Y_{63} = \sin(16\,v)\cos(14131\,v)$

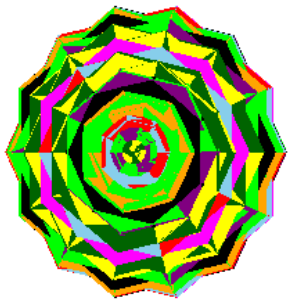
$Z_{63} = 7\sin(16\,u)\sin(14131\,v)$

6　PLANE

Our heart is calm like flat plane.
after making 3D EQG
Our heart is happy like infinity plane.
we enjoy big plane like earth surface.
because we catch equations as 2d for 3d.
every things is done, we feel.
and their plane spead to infinity
we can feel plane as peace

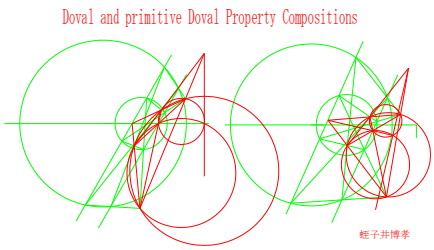
我々は、平らな平面のように気持ちが穏やか
ここにその仕事を示します
２４１＋２＝３＾５　この 241 と 2 を使っただけでできる３ D

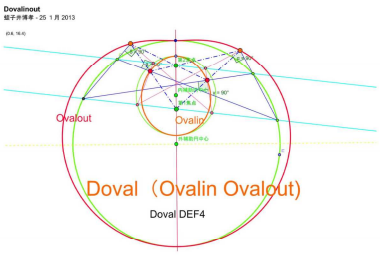
Pachikuri 3D 115 ADD 2-Star defined by H.E



Prof. M.I say "I can not....."
This is happy whisper of 3D

7　DOVAL

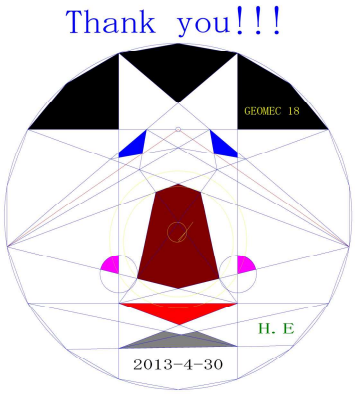


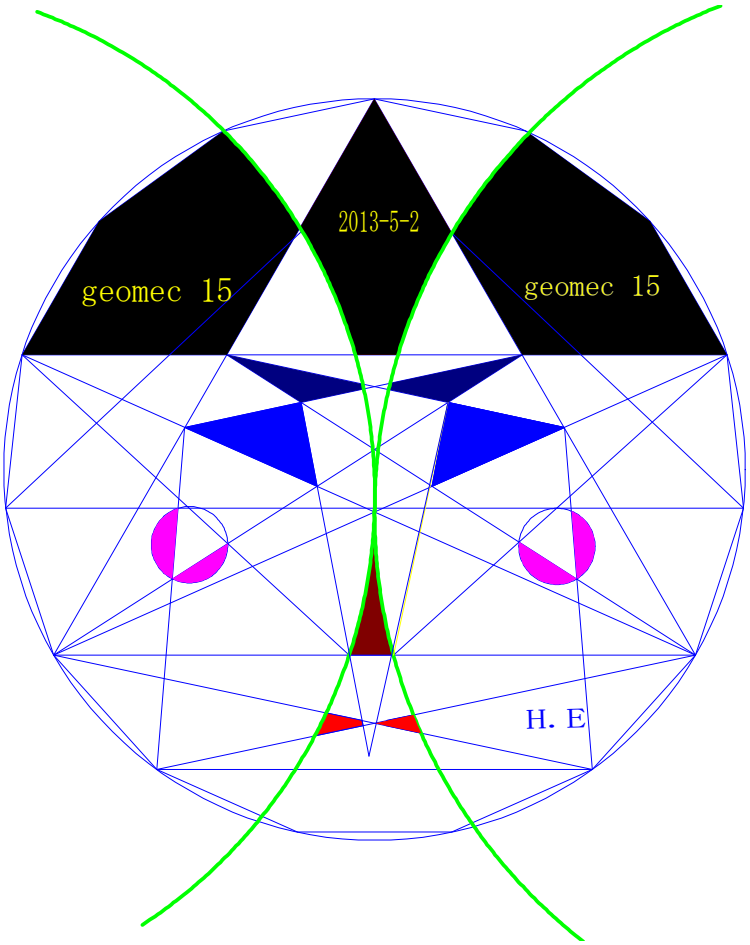


デカルトが居ます。

デカルトの卵形線が Doval の始祖であること
をみつけたのです私が

8　GEOMEC 15





Edit　Summery

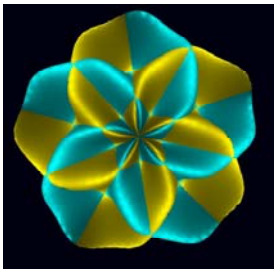
　変なべき映えです。前回の　”　See you in next 34th. If we can,we make HMD.Thank you!!!
by H.E（5-2）”
が実現です。　ありがとう数学の女神さん.　　蛭子井博孝記

geoMathe Diary 35th

IDEAL and Passion no.8

Hirotaka Ebisui and Maria Intagliata

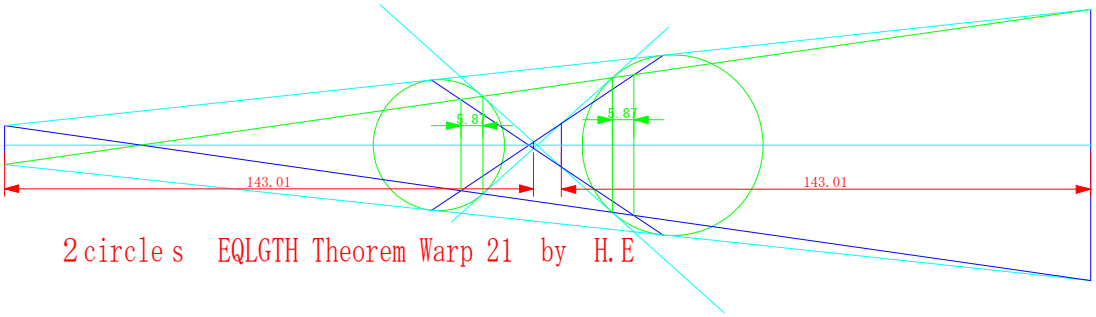
flower



by M.I

contents

今回は、ゆっくり創っている。πに関して、２８ｔｈと、似た関係式で、おもしろい数表になった。
新しい定数：2.38217908799305 が生まれた。
(2.3...)^π＝π ^ 2.38217908799305=15.2862173478355
Triangle はどんなものになるかお楽しみ。
Doval と primitiveDoval も新しく試みる。
歴史とは、一瞬に生まれ滅びる素粒子に匹敵する、新数の発見により揺れ動くもの。。。。。。
ありがとう数学の女神さん。蛭子井博孝記

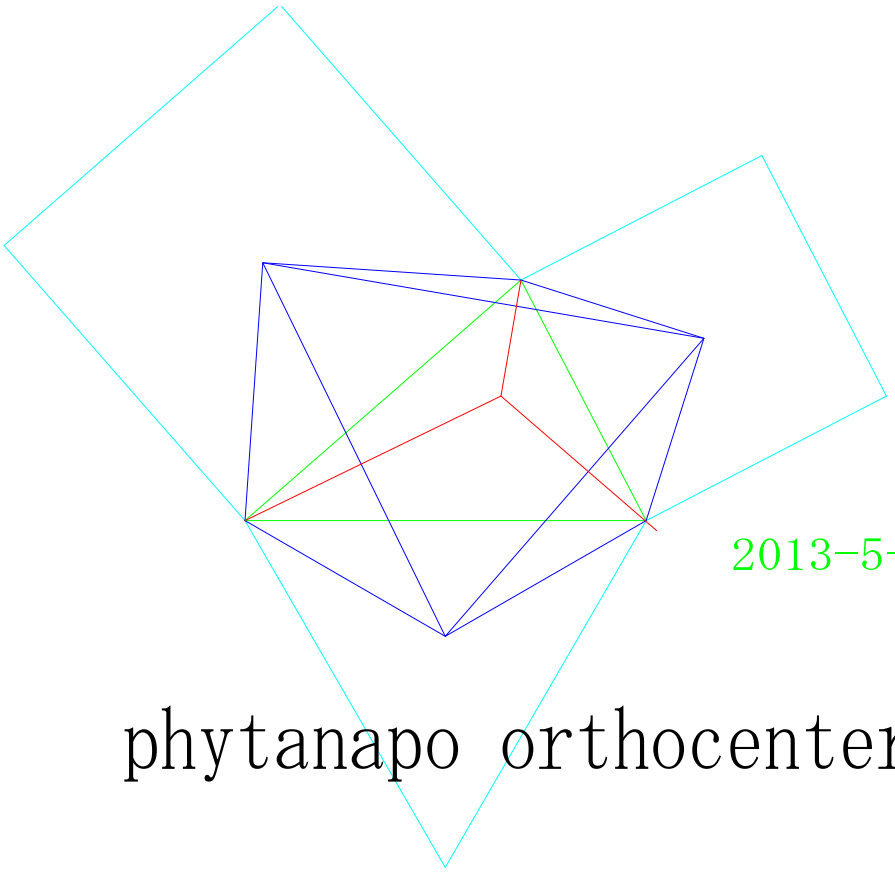


2circles EQLGTH Theorem Warp 21 by H.E

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

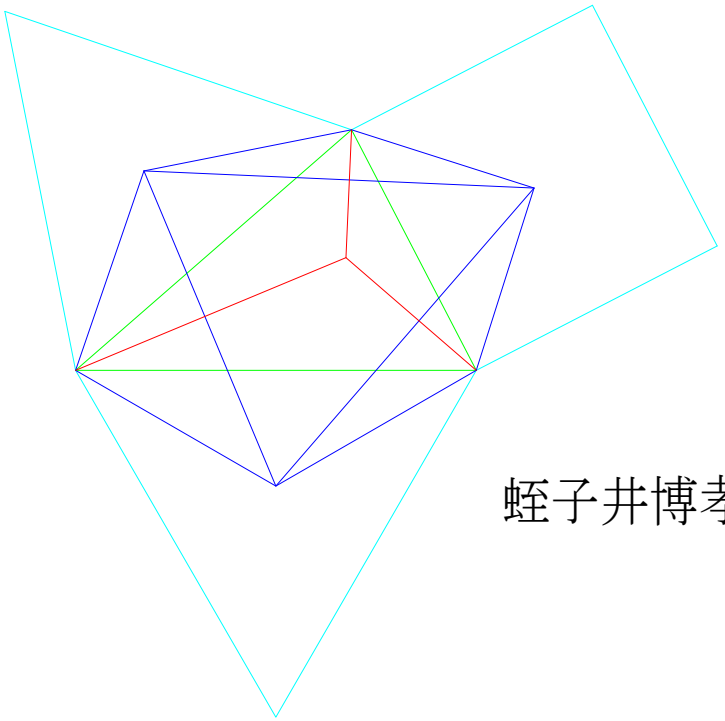
2013-5-10

2. Some Theorem on Triangle in Geometry



2013-5-7

phytanapo orthocenter



蛭子井博孝

3 NUMTable on Pi

```
> # Pi  by H.E:
> PS := 0 :for n from 1 to 10 do PS := fsolve(x^Pi + Pi·x − π^n = 0, x) : print(X^Pi + Pi·X − π^n
    = 0, X = PS) :od:
```

$$X^{\pi} + \pi X - \pi = 0, X = 0.8256415397$$
$$X^{\pi} + \pi X - \pi^{2} = 0, X = 1.638885394$$
$$X^{\pi} + \pi X - \pi^{3} = 0, X = 2.695542686$$
$$X^{\pi} + \pi X - \pi^{4} = 0, X = 4.105409305$$
$$X^{\pi} + \pi X - \pi^{5} = 0, X = 6.058451057$$
$$X^{\pi} + \pi X - \pi^{6} = 0, X = 8.819494457$$
$$X^{\pi} + \pi X - \pi^{7} = 0, X = 12.76106169$$
$$X^{\pi} + \pi X - \pi^{8} = 0, X = 18.41350148$$
$$X^{\pi} + \pi X - \pi^{9} = 0, X = 26.53641917$$
$$X^{\pi} + \pi X - \pi^{10} = 0, X = 38.22080506 \quad (1)$$

```
> for m from 1 to 4 do K := solve(h^m − m^h = 0, h) : print(M^H = H^M, H[M = m]
    = {evalf(K)}) : print(H[M = m] = {K}) :
  print("----------------------------------------------------------------------------------------------------
  ----------") :od:
```

$$M^{H} = H^{M}, H_{M-1} = \{1.\}$$
$$H_{M-1} = \{1\}$$

"----------
---------"

$$M^{H} = H^{M}, H_{M-2} = \{-0.7666646958, 2., 4.\}$$
$$H_{M-2} = \left\{2, 4, -\frac{2\,\mathrm{LambertW}\left(\frac{1}{2}\ln(2)\right)}{\ln(2)}\right\}$$

"----------
---------"

$$M^{H} = H^{M}, H_{M-3} = \{2.478052685, 3., -0.5529245325 - 0.6010604337\,I, -0.5529245325 + 0.6010604337\,I\}$$
$$H_{M-3} = \left\{3, -\frac{3\,\mathrm{LambertW}\left(-\frac{1}{3}\ln(3)\left(-\frac{1}{2}-\frac{1}{2}\,I\sqrt{3}\right)\right)}{\ln(3)}, -\frac{3\,\mathrm{LambertW}\left(-\frac{1}{3}\ln(3)\left(-\frac{1}{2}+\frac{1}{2}\,I\sqrt{3}\right)\right)}{\ln(3)}, -\frac{3\,\mathrm{LambertW}\left(-\frac{1}{3}\ln(3)\right)}{\ln(3)}\right\}$$

"----------
---------"

$$M^{H} = H^{M}, H_{M-4} = \{-0.7666646958, 1.999999998, 4.000000002, -0.2702792292 - 0.8695448160\,I, -0.2702792292 + 0.8695448160\,I\}$$

$$H_{M=4} = \left\{ -\frac{2\,\mathrm{LambertW}\left(-\frac{1}{4}\,I\,16^{1/4}\ln(2)\right)}{\ln(2)}, -\frac{2\,\mathrm{LambertW}\left(\frac{1}{4}\,I\,16^{1/4}\ln(2)\right)}{\ln(2)}, -\frac{2\,\mathrm{LambertW}\left(-\frac{1}{4}\,16^{1/4}\ln(2)\right)}{\ln(2)}, -\frac{2\,\mathrm{LambertW}\left(\frac{1}{4}\,16^{1/4}\ln(2)\right)}{\ln(2)}, -\frac{2\,\mathrm{LambertW}\left(-1, -\frac{1}{4}\,16^{1/4}\ln(2)\right)}{\ln(2)} \right\}$$

"---------- (2)

---------- "

```
> π^3.14159265358979 = evalf(π^3.14159265358979, 15); π^2.38217908799305 = evalf(π^2.38217908799305, 15);
  2.38217908799305^Pi = evalf(2.38217908799305^Pi, 15); PS := evalf(solve(x^Pi - π^x = 0, x), 15) : print(X^Pi - π^X = 0, X = {PS});for n from 2 to 8 do PS||n := evalf(solve(x^Pi
  - n·π^x = 0, x), 15) : print(n = [PS||n]^Pi / π^(PS||n)):od:
```

$$\pi^{3.14159265358979} = 36.4621596072077$$

$$\pi^{2.38217908799305} = 15.2862173478355$$

$$2.38217908799305^{\pi} = 15.2862173478356$$

$$X^{\pi} - \pi^{X} = 0,\ X = \{2.38217908799305,\ 3.14159265358979\}$$

$$2 = \frac{[2.35639210836081 - 1.76228371831438\,I]^{\pi}}{\pi^{2.35639210836081 - 1.76228371831438\,I}}$$

$$3 = \frac{[2.11732914954426 - 2.22103373148791\,I]^{\pi}}{\pi^{2.11732914954426 - 2.22103373148791\,I}}$$

$$4 = \frac{[1.94686716217745 - 2.48942424430572\,I]^{\pi}}{\pi^{1.94686716217745 - 2.48942424430572\,I}}$$

$$5 = \frac{[1.81416084061137 - 2.67575668921190\,I]^{\pi}}{\pi^{1.81416084061137 - 2.67575668921190\,I}}$$

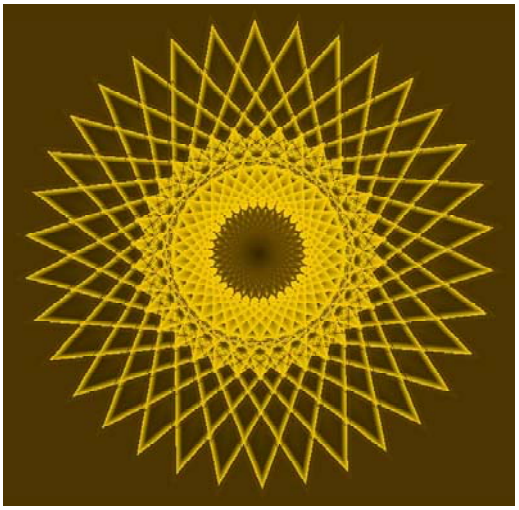
$$6 = \frac{[1.70541543331544 - 2.81680473679211\,I]^{\pi}}{\pi^{1.70541543331544 - 2.81680473679211\,I}}$$

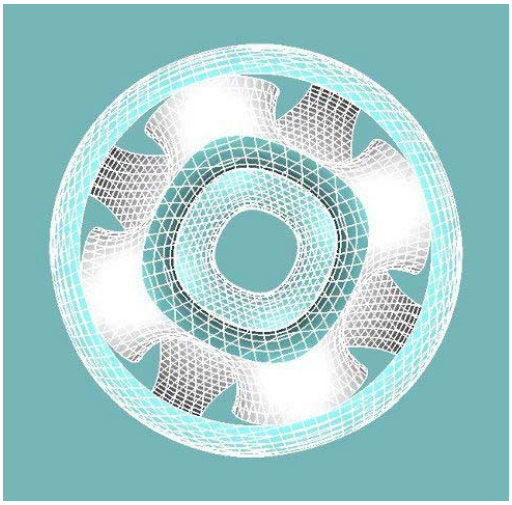
$$7 = \frac{[1.61324972526524 - 2.92938564378483\,I]^{\pi}}{\pi^{1.61324972526524 - 2.92938564378483\,I}}$$

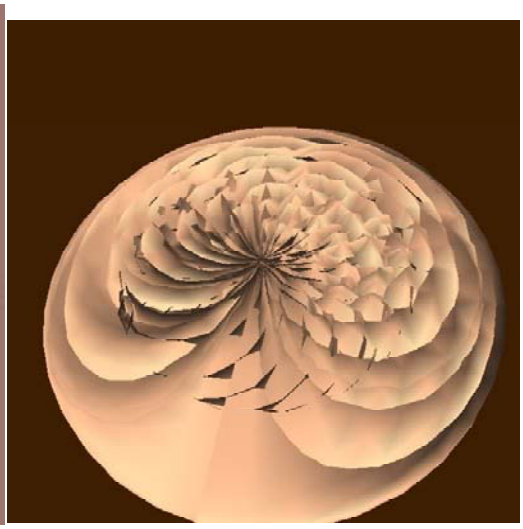
$$8 = \frac{[1.53324672803360 - 3.02253686205513\,I]^{\pi}}{\pi^{1.53324672803360 - 3.02253686205513\,I}} \qquad (3)$$

```
> # by Hirotaka Ebisui 2013-5-7:
>
```

4 3D by M.I

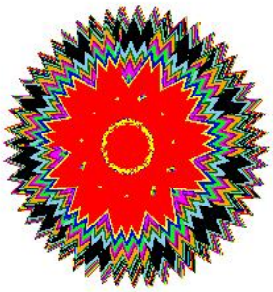






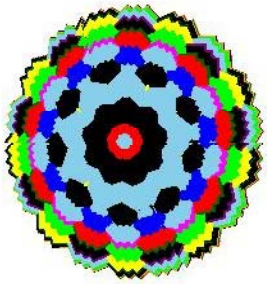
5 3D by H.E

Pi-Star byH.E

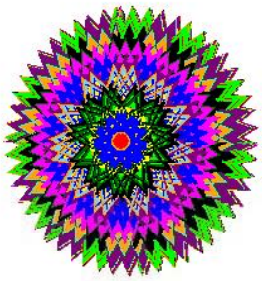


Pi-Star byH.E

Pi-Star byH.E

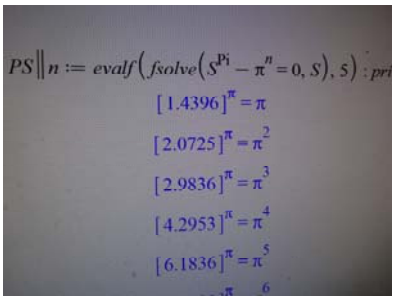


Pi-Star byH.E



6　HISTORY

歴史とは何か、いや歴史に現れる事柄は何か、時代を超えて残るものは何か。いつもこれらの問いに、答えられるものを創ろうと努力している. つまりものの本質、が何か、たとえば、三角形とは、数とは何か、哲学的問いに、答えられルものでしか、歴史的存在とはならない. 今日着て、明日はあらう、日常の衣服や、毎日食べるもの,それは、すぐに消えるであろう。車や,服は、100年も同じものを使わない. しかしピタゴラスの定理は、もう2000年以上も同じものを使っている。このように数学の基本的なものは、歴史を超えて存在する。1+1=2は、これから1000000年以上は使われるだろう。πのしかり。歴史とは、何かを考えて、活きていきたい。



What is history? What apear in History. What exsist beyond history. I alway try to make thee answer for these questions. In another word,What is the principal?For example,what is Triangle?,What is number? Only Answer for Phylosophic question remain　in history.
Clothes that today, we wear, and, tomorrow, we wash ,and, Food we eat every day are not used for 100years . Cars are not used for 100years. But, Phytagoras Theorem are used for 2000years as　same、Elementaly Theorem in Mathematics exsists beyond History.　１＋１＝２ will be used for 1000000 years future. π is　same　as　１＋１＝２。We want to work on thinking what history is.

（H.E）

Pi greco In Italian

Pi greco è dovunque: nella geometria elementare, piana e solida, nella goniometria e trigonometria, in analisi matematica, in statistica, in fisica e in problemi di calcolo delle probabilità, come quello "dell' ago di Buffon". Ma lo si trova anche in composizioni "poetiche" che ne celebrano le cifre e perfino in una marca di profumo e in qualche canzone.

Questo straordinario simbolo, nato come rapporto tra la lunghezza della circonferenza e il suo diametro, rappresenta un numero irrazionale e trascendente, la cui storia millenaria è tra le più affascinanti.

La ricerca delle sue infinite cifre è stata, e continua ad essere, croce e delizia di tanti matematici fin dai tempi dei Babilonesi, che ne attestarono il valore a 25/8, poi degli Egizi che lo fissarono a 3,16, come rilevato dal papiro di Rhind, mentre addirittura nella Bibbia gli viene assegnato come valore 3. Pare che π abbia affascinato molto l' Oriente, lo dimostrano il matematico Bandhayama, l' astronomo Liu-Hcing. A me, in quanto siracusana, piace ricordare il grande contributo di Archimede al calcolo del pi greco, il cui valore egli attestò a 22/7, utilizzando il suo metodo di esaustione, antesignano del futuro concetto di limite.

Sulla scia di Archimede, la passione per la determinazione delle cifre del π raggiunse i massimi livelli grazie al cinese Tsu-Chic e a suo figlio, che diedero dei limiti a π , proprio come aveva fatto Archimede. Ma si sono occupati del π tantissimi altri matematici, tra cui Lord Broucher, con la sua bella "frazione continua", James Gregory e Leibniz, che, con la serie delle arcotangenti, trovarono $\frac{\pi}{4}$. E che dire di Lindemann, il quale dimostrò che l' equazione di Eulero $e^{ix}+1=0$ non ammette come soluzione un numero algebrico e che essa è soddisfatta proprio da π, provandone così la trascendenza.

Dal PIgreco in versi di M.I

A ciascuna cifra corrisponde una parola con lo stesso numero di lettere, per un totale di 999 cifre.

3. 1 4 1 5 9
Sei, o cara e amata geometria,
2 6 5 3 5 8
la poesia amica, del verso sinfonia.
9 7 9
Proprietà antiche, costruite
3 2 3 8
con la dea fantasia,
4 6 2 6
sono eterne, se legate
4 3 3
alla tua via.
....

http://www.matematicamente.it/cultura/matematica_curiosa/pi_greco_in_versi_201004116932/

(M.I)

In English

Pi greek

Pi greek is everywhere: in elementary geometry, plane and solid, in the direction finding and trigonometry, in mathematical analysis, in statistics, in physics and in problems of probability theory, such as "Buffon's needle." But it is also found in "poetic"compositions that celebrate the figures and even a brand of perfume and a few songs.

This unique symbol, born as the ratio between the length of the circumference to its diameter, is an irrational and transcendental number, whose ancient history is among the most fascinating.

The search for his endless digits has been, and continues to be a mixed blessing for many mathematicians since the time of the Babylonians, who attested it to the value of 25/8, then the Egyptians who stared to 3.16, as noted by Rhind papyrus, and even in the Bible it is assigned as a value of 3. It seems that π has fascinated a lot of the 'East, it’ s evident from the Bandhayama mathematician, astronomer Liu-Hcing. I. as from Syracuse, would like to mention the great contribution of Archimedes to the calculation of pi greek, the value of which he testified on 22/7, using his method of exhaustion, a forerunner of the future concept of limit.

In the wake of Archimedes, the passion for the determination of the digits of π reached the highest levels thanks to the Chinese Tsu-Chic and his son, who gave limits to π, just as it did Archimedes. But have dealt with the π many other mathematicians, including Lord Broucher, with its beautiful "continued fraction", James Gregory and Leibniz, who, with the series of arctang, found π / 4. And what about Lindemann, who showed that the Euler equation e ^ (ix) +1 = 0 admits no solution to an algebraic number and that it is satisfied exactly by π, so by testing transcendence.

From Pi in verses by M.I

Each digit corresponds to a word with the same number of letters, for a total of 999 digits.

3. 1 4 1 5 9

Are o, dear and beloved geometry,

2 6 5 3 5 8

the poetry friend, of verse symphony.

9 7 9

properties ancient, built

3 2 3 8

with the goddess fantasy,

4 6 2 6

are eternal, if related

4 3 3

to your way.

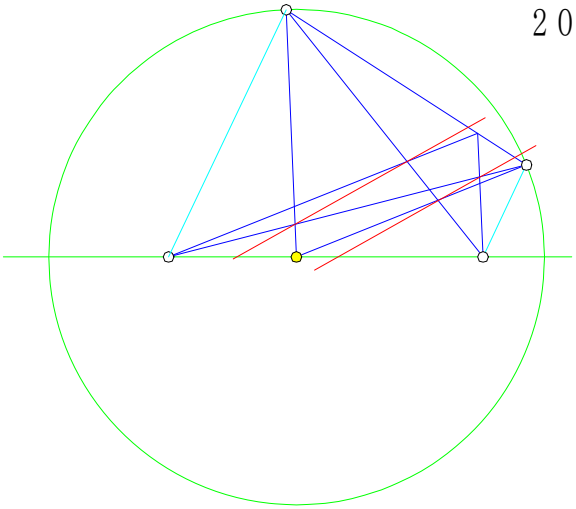
....

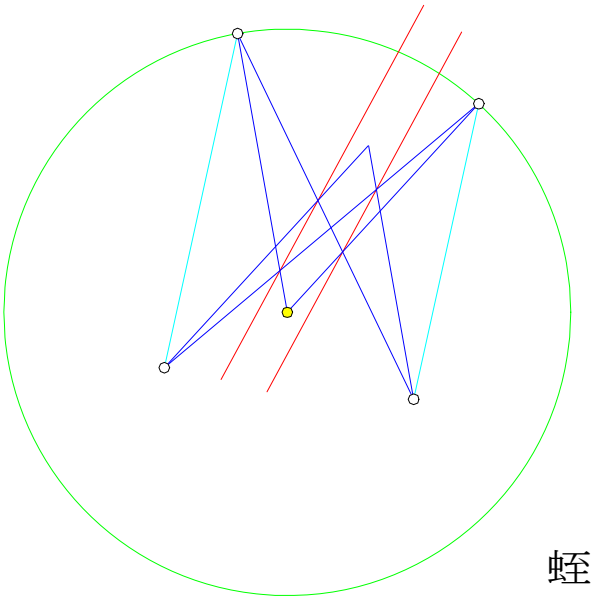
http://www.matematicamente.it/cultura/matematica_curiosa/pi_grec

7　DOVAL

Dovalの4組平行の定理

２０１３－５－７

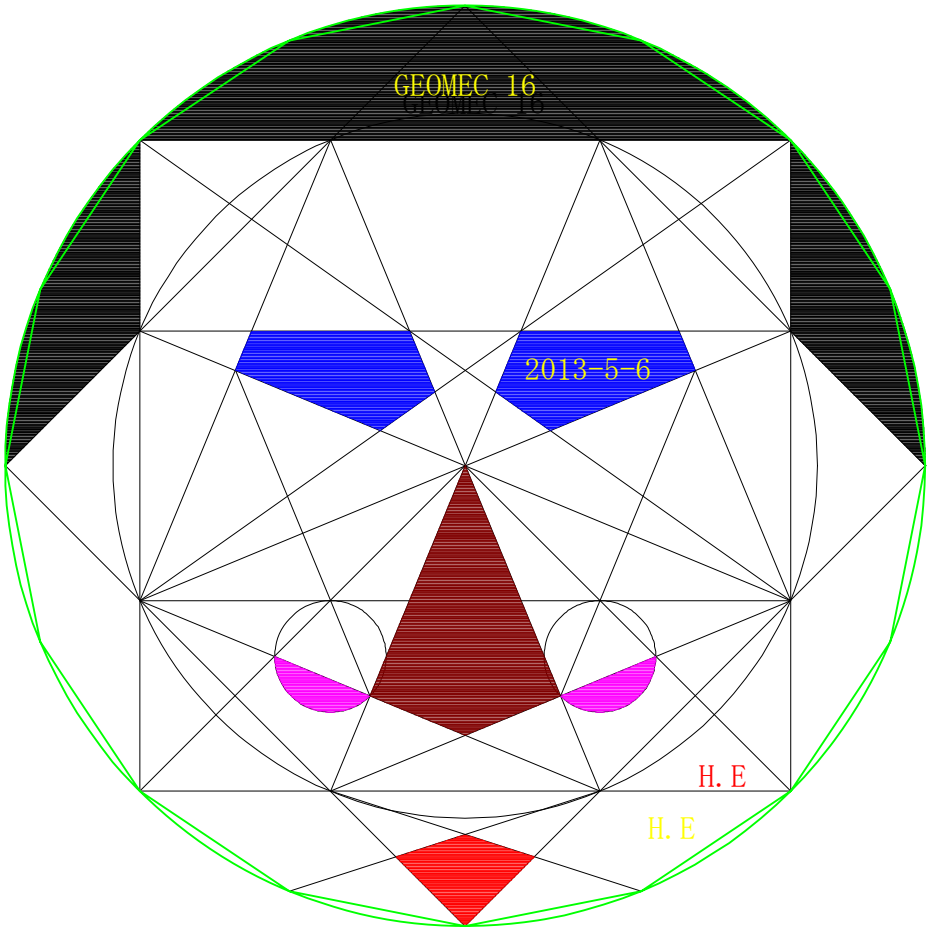




蛭子井博孝

8.　GEOMEC16

Thank you!!!



編集後記

マリアさんの記事翻訳を載せるのを忘れ指摘され気づいた。
それを載せて、改めて、作り直した。
へまな編集者である。スクロールの大事さを教えてもらった。
ご勘弁を、でも、きれいになった。　　(H.E)

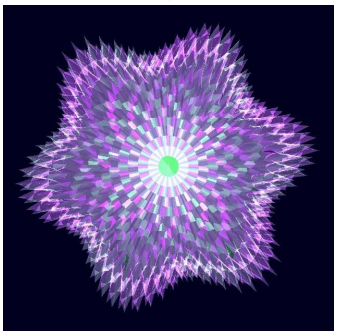
数学日記

geoMathe Diary 36th

IDEAL and Passion No.9

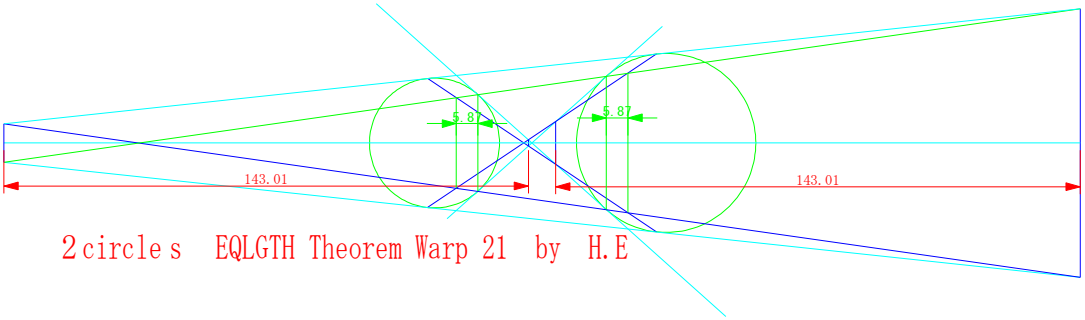
Hirotaka Ebisui and Maria Intagliata

Diary Flower



contents

5-10 NewPc for 36-63th diary を準備した。
6 は、Tittle なしの 2 人のノートを掲載。気ままな文章を載せる。明日、糖尿で入院予定。
血糖値が 530。なかなか、直らない。とにかくリセット入院だ。その間役１０日はこの日記は休む。
しかし退院して出せるように準備するつもりだ。
ヘキサゴン 6 垂線、３平行の定理を見つけ、数学観が変わった。数学とは何か、また、はじめから問い直しである。この 36th が最後かもしれない

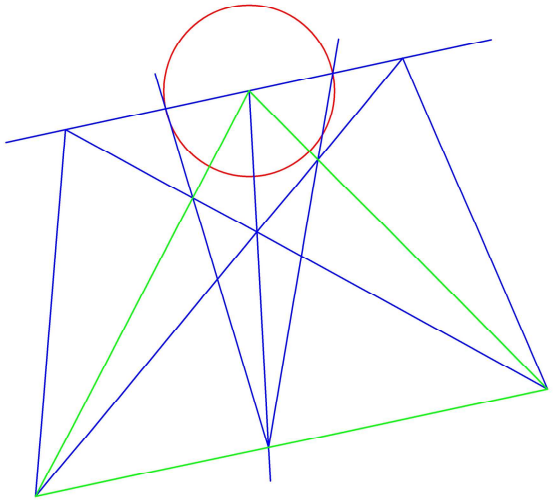


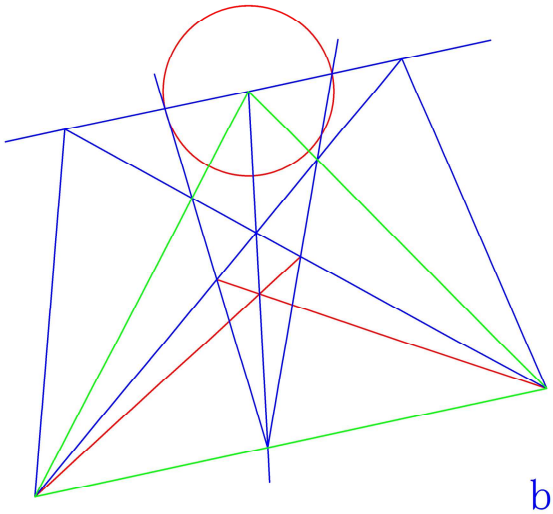
2circles　EQLGTH Theorem Warp 21　by　H.E

卵形線研究センター
http://hoval.blogzine.jp/

2 on Triangle

sundry ones 2013-5-8





by h. e

3 NUMTABLE π

```
> # pi eq and solutions by H.E
> for h from 1 to 8 do print(seq(π^(e/h) = evalf(π^(e/h), 4), e = 1..8)) :od:
```

$\pi = 3.142, \pi^2 = 9.872, \pi^3 = 31.02, \pi^4 = 97.46, \pi^5 = 306.2, \pi^6 = 962.1, \pi^7 = 3023., \pi^8 = 9498.$

$\sqrt{\pi} = 1.773, \pi = 3.142, \pi^{3/2} = 5.573, \pi^2 = 9.872, \pi^{5/2} = 17.52, \pi^3 = 31.02, \pi^{7/2} = 55.08, \pi^4 = 97.46$

$\pi^{1/3} = 1.465, \pi^{2/3} = 2.145, \pi = 3.142, \pi^{4/3} = 4.602, \pi^{5/3} = 6.740, \pi^2 = 9.872, \pi^{7/3} = 14.46, \pi^{8/3} = 21.18$

$\pi^{1/4} = 1.331, \sqrt{\pi} = 1.773, \pi^{3/4} = 2.360, \pi = 3.142, \pi^{5/4} = 4.183, \pi^{3/2} = 5.573, \pi^{7/4} = 7.415, \pi^2 = 9.872$

$\pi^{1/5} = 1.257, \pi^{2/5} = 1.581, \pi^{3/5} = 1.988, \pi^{4/5} = 2.499, \pi = 3.142, \pi^{6/5} = 3.950, \pi^{7/5} = 4.967, \pi^{8/5} = 6.245$

$\pi^{1/6} = 1.210, \pi^{1/3} = 1.465, \sqrt{\pi} = 1.773, \pi^{2/3} = 2.145, \pi^{5/6} = 2.596, \pi = 3.142, \pi^{7/6} = 3.803, \pi^{4/3} = 4.602$

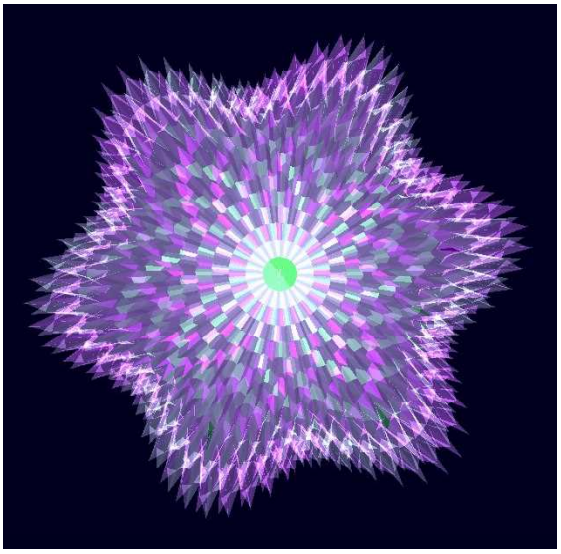
$\pi^{1/7} = 1.178, \pi^{2/7} = 1.387, \pi^{3/7} = 1.633, \pi^{4/7} = 1.924, \pi^{5/7} = 2.265, \pi^{6/7} = 2.668, \pi = 3.142, \pi^{8/7} = 3.700$

$\pi^{1/8} = 1.154, \pi^{1/4} = 1.331, \pi^{3/8} = 1.536, \sqrt{\pi} = 1.773, \pi^{5/8} = 2.045, \pi^{3/4} = 2.360, \pi^{7/8} = 2.723, \pi = 3.142$ **(1)**

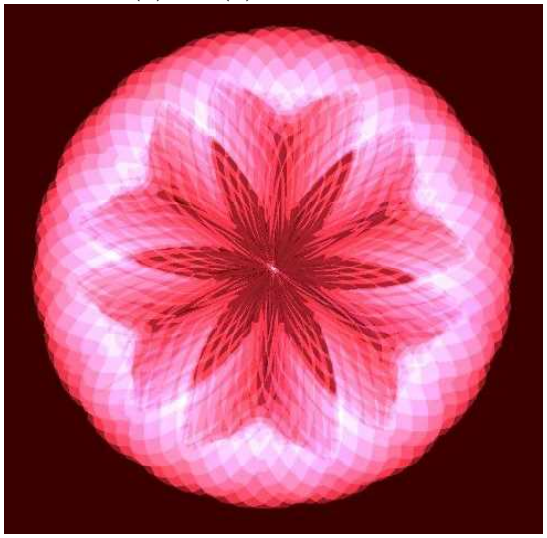
```
>
>
```

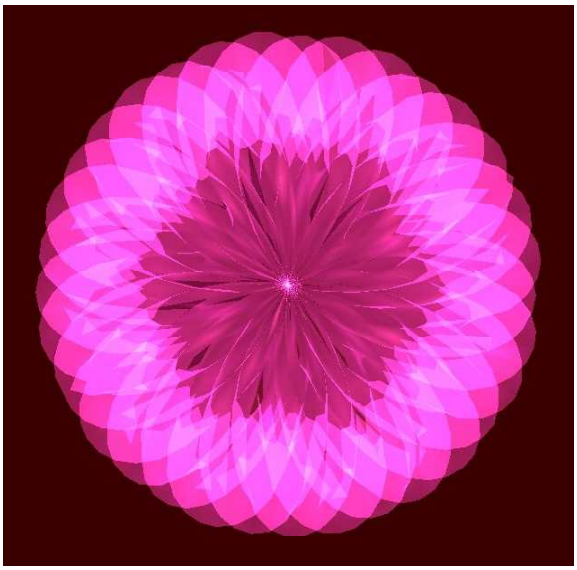
3 3D by M.I

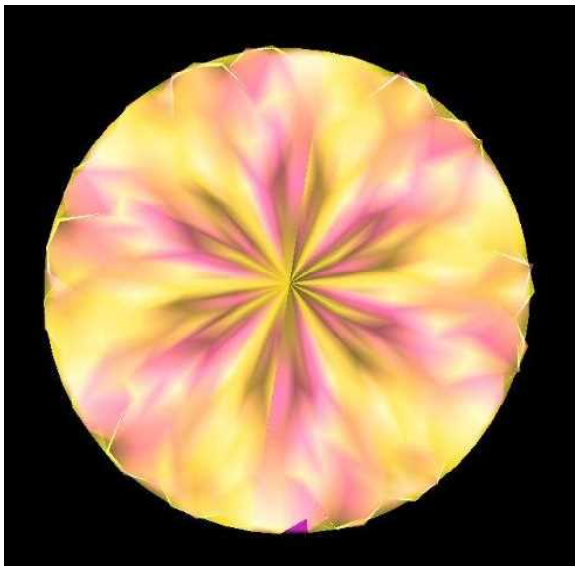
X=cos(34*u+32*v)*cos(30*v+28*u)
*0.5*sin(35*v+33*4)^2
Y=1.01*sin(u)*sin(v)
Z=cos(u)*sin(v)



X= 0.2*pi^cos(34*u+32*v)^4
*cos(30*v+28*u)^4
*pi^cos(sin(31*u+29*v))
Y= sin(u) *sin(v)
Z= cos(u)*sin(v)





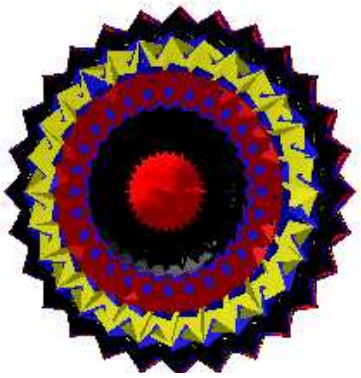


5 3d by H.E

Pris H.M.-Star (meq) byH.E

$$X[29] = 4\cos(103049\,u)\ \sin(103067\,v)$$
$$Y[29] = \sin(103049\,v)\ \cos(103067\,v)$$
$$Z[29] = 4\sin(103049\,u)\ \sin(103067\,v)$$

Pris H.M.-Star (meq) byH.E



$$X[27] = 4\cos(84047\,u)\ \sin(84053\,v)$$
$$Y[27] = \sin(84047\,v)\ \cos(84053\,v)$$
$$Z[27] = 4\sin(84047\,u)\ \sin(84053\,v)$$

Pris H.M.-Star (meq) byH.E

$$X[25] = 4\cos(74489\,u)\ \sin(74507\,v$$
$$Y[25] = \sin(74489\,v)\ \cos(74507\,v)$$
$$Z[25] = 4\sin(74489\,u)\ \sin(74507\,v)$$

Pris H.M.-Star (meq) byH.E

$$X[19] = 4\cos(28793\,u)\ \sin(28807\,v)$$
$$Y[19] = \sin(28793\,v)\ \cos(28807\,v)$$
$$Z[19] = 4\sin(28793\,u)\ \sin(28807\,v)$$

6 " EQUATION"

式について(H.E)

数式ほど不思議なものはない。その一つに、青春時代から、夢見ていた次ページDovalの標準形がある。今日コンピュータグラフィックが、それをグラフにしてくれる。フラクタル図形やこの日記のマリアさんのグラフや、私の3dも、簡単に描ける。ありがたい。式について、マリアさんの記事を読んで、マクスウェルの方程式の思い出を思い出した。それは私の大学院の試験にMaxwellの方程式について書けという問題が出た。しかし、私は、シュレディンガーの方程式や卵形線の式に夢中になって,勉強しなかったのである。いや覚えなかったのである。その大事さは、Dovalの標準形の比ではない。方程式が、物理量を表して初めて、数学は、存在権を得る。我々の花の式は、その中間。
多くを語らなくても、式の不思議はわかるであろう。式を愛することは、図を愛することに通じる。 (H.E)

in English

Equation is so strange things. oneof them is following Doval standard Fomular which i tried to find in my younger days. and I made it many years later. Resently PC generates easyly some CG of Equations by function graphic soft.Fractal and our 3D can be ganeated ,too. We appriciate to soft maker. Maxwell in Maria's DOC remind of my waxwell memory.It is the probrem of entrance examine of my graduate school. I had to write about waxwell equation,but I could not write any things about it.I did not to study and memolize about it.when I had to do it,i was carzy about Doval equation and Shulledinger Equations of quantum macanic. Maxwell eq is more important than them. Ithink so now. it's equation expresses physics quantity.and ,then equation exsist in real space. our flower equation is on the way to exsist. not to much talk tells us their strangeness. to love equations it same as to love figure in geometry.

```
> # DOVAL CG by x-y STANDARD FORMULA transformed from Bipolar coordinates
    (m·R1±nR2=k·c) by Hirotaka Ebisui
> with(plots) :
> #:
> #----------:
> # Doval(The Inner ond Outer Oval of Descartes is defined by Followings 4th Order x-y
    Algeblic Equation.
> # (m^2 - n^2)^2·(y^2 + (x + n^2·c/(m^2 - n^2))^2 - ((k^2·m^2 + k^2·n^2 + m^2·n^2)/(m^2 - n^2)^2)·c^2)^2 =
    -8·k^2·m^2·n^2·c^3/(m^2 - n^2)·(x + n^2·c/(m^2 - n^2)) + 4 k^2·m^2·n^2·(k^2 + m^2 + n^2)·c^4/(m^2 - n^2)^2 :
> #k,m,n:Arbitraly constant with a condition(k > m > n > 0), c : the distance between Fisrt
    and Secand focus points) :
> #----------:
> # Example 1:
> m := 9 :
> n := 6 :
> k := 10 :
> c := 1 :
> #:
> implicitplot((m^2 - n^2)^2·(y^2 + (x + n^2·c/(m^2 - n^2))^2 - ((k^2·m^2 + k^2·n^2 + m^2·n^2)/(m^2 - n^2)^2)·c^2)^2 =
    -8·k^2·m^2·n^2·c^3/(m^2 - n^2)·(x + n^2·c/(m^2 - n^2)) + 4 k^2·m^2·n^2·(k^2 + m^2 + n^2)·c^4/(m^2 - n^2)^2, x = -20..10, y =
    -10..10, numpoints = 100000);
```

In Italian by M.I

Equazione

L’equazione è per me una delle invenzioni più belle e fondamentali del pensiero matematico; lo ha detto anche Einstein: “ Tutto ciò che non si condensa in un’ equazione non è Scieza”.
Ed infatti questo splendido modello matematico, risolutore di sterminate classi di problemi, viene usato in tutte le scienze e figura molto spesso nei grandi risultati di importanti studiosi del passato: basti pensare alle splendide equazioni di Maxwell, in cui è racchiusa tutta la Fisica e non solo.
Un’ equazione può essere di tanti tipi: algebrica, trascendente, funzionale, diofantea e chi più ne ha più ne metta. Sicuramente essa è stata oggetto di studio della maggior parte dei grandi matematici del passato, come Eulero con la sua meravigliosa equazione, soddisfatta dall’ irrazionale e trascendente Pi greco.
Ma anche oggi l’ equazione riveste un ruolo importante, nella teoria delle equazioni alle derivate parziali, ad esempio, un campo di grande interesse dei matematici dei nostri giorni, tra cui anche il giovane australiano di adozione, Terence Tao, vincitore tra l’ altro, della medaglia Fields.
Un’ equazione rappresenta soprattutto un vincolo , la cui soluzione è quel “qualcosa “che lo soddisfa, perciò a chi vuol essere libero da vincoli l’ equazione potrebbe non piacere.

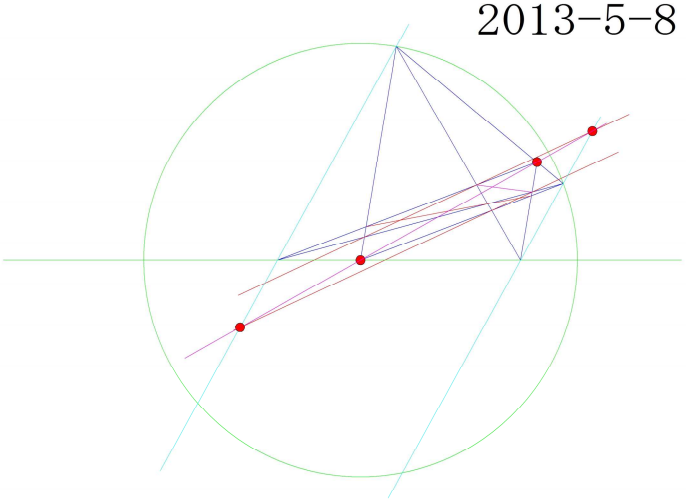
In English

Equation

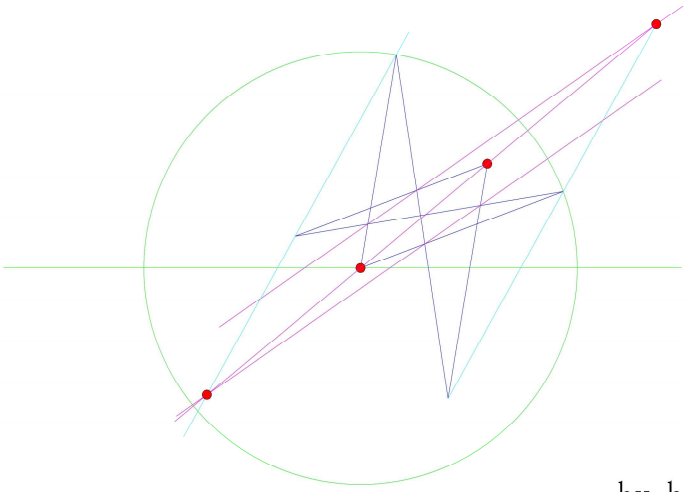
The equation is by me one of the most fundamental and beautiful inventions of mathematical thinking;
Einstein also said: "Everything that does not condense in an equation is not science."
And in fact this beautiful mathematical model, solver exterminated classes of problems, is used in a lot of sciences and is very often in great results of important scholars of the past: just think of the beautiful Maxwell's equations, in which is contained the whole Physics and only it.
An equation can be of many kinds: algebraic, transcendental, functional, Diophantine and so on and so forth. Surely it was the object of study of most of the great mathematicians of the past, as Euler with his wonderful equation satisfied by the irrational and transcendental Pi greek.
But even today the equation plays an important role in the theory of partial differential equations, for example, a field of great mathematicians of our time, including the young Australian by adoption, Terence Tao, among other winner , the Fields Medal.

7 Doval and Primitive Doval

2013-5-8

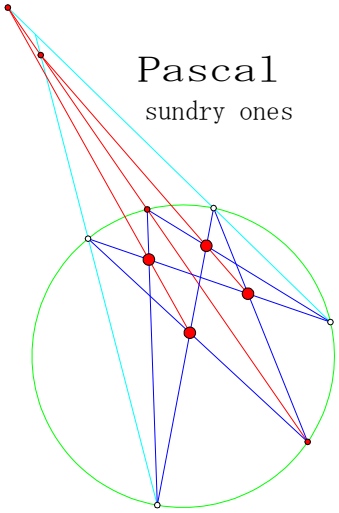


Doval and primitive Doval sundry ones theorems



by h.e

8　　GEOMEC 12



2013-5-8

蛭子井博孝

編集後記

はじめのメモで感じたとおり、マリアさんとは最後になりそう。明日入院に文章が間に合わない。お互いの調子を合わせるのは、難しい。残念ながら、9 番で、当分終わり。

でもよく続いたものだ。ありがとう、マリアさん。今、マリアさんから EQUATION が届いた。それを読んで、私を真摯にした.ああ,MAXWELL の電磁方程式。忘れていた。青春のすべてが、まちがっていた。そして、奇妙な Doval の標準形。私は、奇妙な人生を送っている。マリアさんの献身的な、人生に比べ、最後のジオメックとパスカルの新定理雑題が物語る人生。　　えびすいひろたか　2013-5-10 深夜

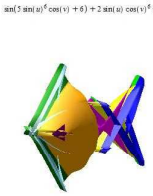
数学日記

geoMathe Diary 37 th

IDEAL and Passion No. 1 0

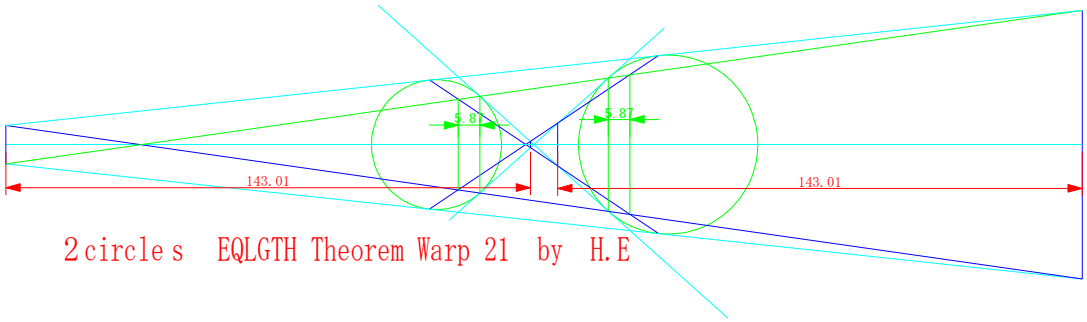
Hirotaka Ebisui and Maria Intagliata

Fish



contents

5-23　午前 2 時過ぎ、飲み物を買い、飲みながら編集、まだ 6 の原稿がない。5 まですむ。3 を pdf を利用したいが、画像にした。平行線の記事書くのが大変。DOVAL もまだ。寂しさや、どうでもいいや、五月冷え。何かしっくりこない。この日記作りも面倒が伴う メイプルで数表作りや、3d 作りだけが楽、マリヤさんの 3D や DOC と一緒にするのが面倒。しかし、まとめて編集しておかないと、ばらばらになる。7:40　am　37th end ありがとう。(h.e)

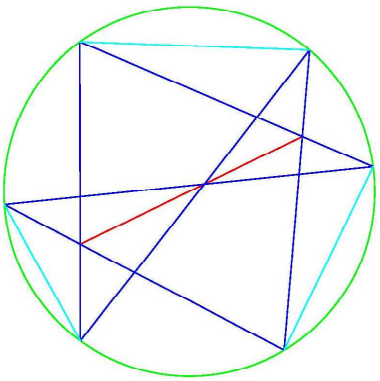


2circle s　EQLGTH Theorem Warp 21　by　H.E

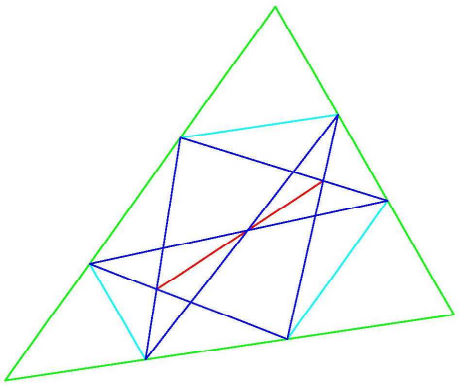
卵形線研究センター
http://hoval.blogzine.jp/

2 on Paralell Theorem in Geometry

Ci r c le Pascal Theorem



Triangle Paralell Pascal Theorem

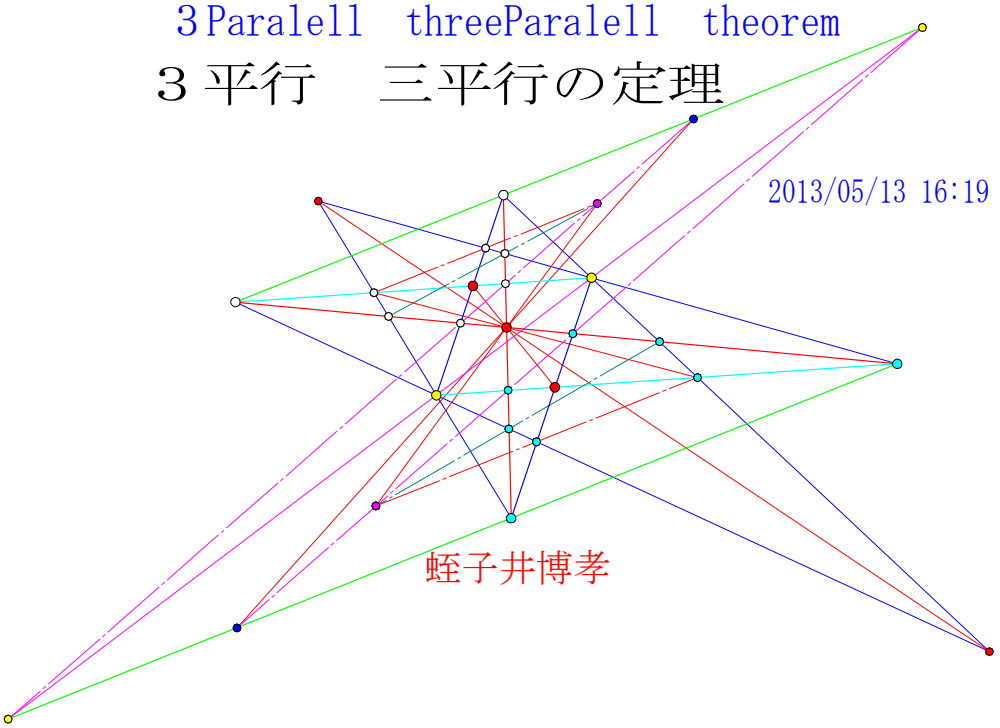


蛭子井博孝

3 Paralell threeParalell theorem

3 平行　三平行の定理

2013/05/13 16:19



蛭子井博孝

3 NUMBER Table Prime

```
> # HI-NUMTable m^h + e^e + h^m = MHE prime , MHE^i by HE 2013 - 5 - 22 :
> c := 0 :for h from 2 to 8 do for m from 2 to 13 do for e from 2 to 5 do MHE := m^h + e^e
  + h^m : if isprime(MHE) then c := c + 1 : print( mhe(c)[[2, 13], [2, 8], [2, 5]], [m]^h
  + [e]^e + [h]^m = MHE prime) fi:for i from 2 to 9 do if floor(evalf(MHE^(1/i)))^i = MHE
  then c := c + 1 : print(mhe(c)[[2, 13], [2, 8], [2, 5]], [m]^h + [e]^e + [h]^m
  = [simplify(MHE^(1/i))])^i) fi:od:od:od:od:
```

$$mhe(1)_{[2,13],[2,8],[2,5]},\ [4]^2+[2]^2+[2]^4=[6]^2$$

$$mhe(2)_{[2,13],[2,8],[2,5]},\ [4]^2+[3]^3+[2]^4=59\ prime$$

$$mhe(3)_{[2,13],[2,8],[2,5]},\ [5]^2+[2]^2+[2]^5=61\ prime$$

$$mhe(4)_{[2,13],[2,8],[2,5]},\ [5]^2+[4]^4+[2]^5=313\ prime$$

$$mhe(5)_{[2,13],[2,8],[2,5]},\ [6]^2+[3]^3+[2]^6=127\ prime$$

$$mhe(6)_{[2,13],[2,8],[2,5]},\ [7]^2+[2]^2+[2]^7=181\ prime$$

$$mhe(7)_{[2,13],[2,8],[2,5]},\ [7]^2+[4]^4+[2]^7=433\ prime$$

$$mhe(8)_{[2,13],[2,8],[2,5]},\ [8]^2+[2]^2+[2]^8=[18]^2$$

$$mhe(9)_{[2,13],[2,8],[2,5]},\ [8]^2+[3]^3+[2]^8=347\ prime$$

$$mhe(10)_{[2,13],[2,8],[2,5]},\ [8]^2+[4]^4+[2]^8=[24]^2$$

$$mhe(11)_{[2,13],[2,8],[2,5]},\ [10]^2+[3]^3+[2]^{10}=1151\ prime$$

$$mhe(12)_{[2,13],[2,8],[2,5]},\ 3\,[3]^3=[9]^2$$

$$mhe(13)_{[2,13],[2,8],[2,5]},\ 3\,[3]^3=[3]^4$$

$$mhe(14)_{[2,13],[2,8],[2,5]},\ [4]^3+[2]^2+[3]^4=149\ prime$$

$$mhe(15)_{[2,13],[2,8],[2,5]},\ [4]^3+[4]^4+[3]^4=401\ prime$$

$$mhe(16)_{[2,13],[2,8],[2,5]},\ [6]^3+[4]^4+[3]^6=1201\ prime$$

$$mhe(17)_{[2,13],[2,8],[2,5]},\ [7]^3+[3]^3+[3]^7=2557\ prime$$

$$mhe(18)_{[2,13],[2,8],[2,5]},\ [9]^3+[5]^5+[3]^9=23537\ prime$$

$$mhe(19)_{[2,13],[2,8],[2,5]},\ [11]^3+[5]^5+[3]^{11}=181603\ prime$$

$$mhe(20)_{[2,13],[2,8],[2,5]},\ [4]^2+[2]^2+[2]^4=[6]^2$$

$$mhe(21)_{[2,13],[2,8],[2,5]},\ [4]^2+[3]^3+[2]^4=59\ prime$$

$$mhe(22)_{[2,13],[2,8],[2,5]},\ [4]^3+[2]^2+[3]^4=149\ prime$$

$$mhe(23)_{[2,13],[2,8],[2,5]},\ [4]^3+[4]^4+[3]^4=401\ prime$$

$$mhe(24)_{[2,13],[2,8],[2,5]},\ 2\,[4]^4+[5]^5=3637\ prime$$

$$mhe(25)_{[2,13],[2,8],[2,5]},\ [6]^4+[3]^3+[4]^6-5419\ prime$$

$$mhe(26)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [5]^2+[2]^2+[2]^5=61\ prime$$
$$mhe(27)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [5]^2+[4]^4+[2]^5=313\ prime$$
$$mhe(28)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ 2\,[5]^5+[3]^3=6277\ prime$$
$$mhe(29)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [7]^5+[5]^5+[5]^7=98057\ prime$$
$$mhe(30)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^5+[4]^4+[5]^8=423649\ prime$$
$$mhe(31)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [10]^5+[4]^4+[5]^{10}=[3141]^2$$
$$mhe(32)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [6]^2+[3]^3+[2]^6=127\ prime$$
$$mhe(33)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [6]^3+[4]^4+[3]^6=1201\ prime$$
$$mhe(34)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [6]^4+[3]^3+[4]^6=5419\ prime$$
$$mhe(35)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [7]^6+[2]^2+[6]^7=397589\ prime$$
$$mhe(36)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [11]^6+[4]^4+[6]^{11}=364568873\ prime$$
$$mhe(37)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [7]^2+[2]^2+[2]^7=181\ prime$$
$$mhe(38)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [7]^2+[4]^4+[2]^7=433\ prime$$
$$mhe(39)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [7]^3+[3]^3+[3]^7=2557\ prime$$
$$mhe(40)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [7]^5+[5]^5+[5]^7=98057\ prime$$
$$mhe(41)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [7]^6+[2]^2+[6]^7=397589\ prime$$
$$mhe(42)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^7+[2]^2+[7]^8=7861957\ prime$$
$$mhe(43)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^7+[4]^4+[7]^8=7862209\ prime$$
$$mhe(44)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^2+[2]^2+[2]^8=[18]^2$$
$$mhe(45)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^2+[3]^3+[2]^8=347\ prime$$
$$mhe(46)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^2+[4]^4+[2]^8=[24]^2$$
$$mhe(47)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^5+[4]^4+[5]^8=423649\ prime$$
$$mhe(48)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^7+[2]^2+[7]^8=7861957\ prime$$
$$mhe(49)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [8]^7+[4]^4+[7]^8=7862209\ prime$$
$$mhe(50)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [10]^8+[3]^3+[8]^{10}=1173741851\ prime$$
$$mhe(51)_{[2,\,13],\,[2,\,8],\,[2,\,5]},\ [13]^8+[2]^2+[8]^{13}=550571544613\ prime \qquad (1)$$

>

>

```
> # HI-NUMTable m^h+h^m=prime , X^E by HE
> c := 0 :for h from 2 to 420 do for m from 2 to 717 do MH := m^h+h^m : if isprime(MH) then c
      := c+1 : print( mh(c)[2, 717, 2, 420], [m]^h+[h]^m=MH prime) fi:od:od:
```

$$mh(1)_{2,\,717,\,2,\,420},\ [3]^2+[2]^3=17\ prime$$

$$mh(2)_{2,\,717,\,2,\,420},\ [9]^2+[2]^9=593\ prime$$

$$mh(3)_{2,\,717,\,2,\,420},\ [15]^2+[2]^{15}=32993\ prime$$

$$mh(4)_{2,\,717,\,2,\,420},\ [21]^2+[2]^{21}=2097593\ prime$$

$$mh(5)_{2,\,717,\,2,\,420},\ [2]^{33}+[33]^2=8589935681\ prime$$

$$mh(6)_{2,\,717,\,2,\,420},\ [3]^2+[2]^3=17\ prime$$

$$mh(7)_{2,\,717,\,2,\,420},\ [56]^3+[3]^{56}=523347633027360537213687137\ prime$$

$$mh(8)_{2,\,717,\,2,\,420},\ [24]^5+[5]^{24}=59604644783353249\ prime$$

$$mh(9)_{2,\,717,\,2,\,420},\ [54]^7+[7]^{54}$$
$$=43181145673964365640352930977077294264774588 33\ prime$$

$$mh(10)_{2,\,717,\,2,\,420},\ [69]^8+[8]^{69}$$
$$=20568806966515075526937114781966881312284198320471128129300476 9\ prime$$

$$mh(11)_{2,\,717,\,2,\,420},\ [519]^8+[8]^{519}$$
$$=505479152674229733520596870056549099852182217911579747572184522752578\backslash$$
$$2669291533265889572996476768982743800907103496841016875243491913804441 1\backslash$$
$$2667381678111384184860356511085410337849517626922159241029598448165914 1\backslash$$
$$6094303890605963458316051669258852273278110990678722885506920053059755 5\backslash$$
$$4553228650954553370073618960024305342279986560068771512862009103387643 8\backslash$$
$$2069272077117378207761643587557667908851780851022798519689352398494702 4\backslash$$
$$5208605973794546945608584055257251004090549 13\ prime$$

$$mh(12)_{2,\,717,\,2,\,420},\ [9]^2+[2]^9=593\ prime$$

$$mh(13)_{2,\,717,\,2,\,420},\ [76]^9+[9]^{76}$$
$$=332989636531614275632230704206526979767825790350750676442125029156231\backslash$$
$$2417\ prime$$

$$mh(14)_{2,\,717,\,2,\,420},\ [122]^9+[9]^{122}$$
$$=261568927457882874608733211757582315090892217214195250256575658313972\backslash$$
$$9012811703198304266497204950553377759652080770 73\ prime$$

$$mh(15)_{2,\,717,\,2,\,420},\ [422]^9+[9]^{422}$$
$$=490161259638758699097587516570388804223553320893605638530153376222613\backslash$$
$$4758001353093045164085893902231124298340961090001175106793461178892705 0\backslash$$
$$1500220276870690868362592660809032028692154394138594077772721401059443 3\backslash$$
$$6311988659234746539511766642681251567942186057927231745314228180530265 2\backslash$$
$$9153000051034823266072514791167071576662016163688977127181872245070108 6\backslash$$
$$5818087297041761339742275426528843183155052311627 3\ prime$$

$$mh(16)_{2,\,717,\,2,\,420},\ [2]^{15}+[15]^2=32993\ prime$$

$$642800347049744565600725773020797109674228940348338700790563410423139 54\backslash$$
$$950303306609775366758875654233649026454012791177182484068909800375740 63\backslash$$
$$556779261840987792390332880460768674750855118278821518731570682525940 97\backslash$$
$$87659457\ prime$$

$$mh(82)_{2,\,717,\,2,\,420,}\,[590]^{291}+[291]^{590}$$
$$=497580671300124388391815675795877205869106067218809612664306364720401\backslash$$
$$092854330748848117611513228028606015065987679454064143886803858821166 13\backslash$$
$$368423283362391938640955388045706925135010265384852853616799155673737 80\backslash$$
$$362079411328592667271207717466492908848667587501486363480060772204300 60\backslash$$
$$170260653953203216425348666617097933047948829370058394161207457621890 48\backslash$$
$$800874810527670890633735507407885073181642174828434164875868700010243 03\backslash$$
$$518689682017043320939552798251731254385814547703584204935095506457634 78\backslash$$
$$498307992063101133631300045507410346957111006583046056926581273835321 18\backslash$$
$$716643845736370805911980264990737516412411345915199075480591395274122 86\backslash$$
$$913778928660137303043067573266450923834461716298556908081151366416133 85\backslash$$
$$909894578760049867610716900849345339826740271987506887970856571190136 24\backslash$$
$$152414781157156278942332789894248549425636475068136078576571960765229 90\backslash$$
$$893701873762996577418097573335258152562560015478759259929351268419920 30\backslash$$
$$649684928069546224716431647891964299573374350339038561275461343687741 72\backslash$$
$$619909564653514350159245905216009346142852580945059575482300801110153 47\backslash$$
$$009946054862339238135953815348938123952648754559791748757860824109501 31\backslash$$
$$682771946788155840623134020230099293536631062664721108423606292687328 24\backslash$$
$$360212614179938531812902501546446538445993941119085984797232387103293 92\backslash$$
$$833083095340107825551681045916649133685297618921347048263226707182374 57\backslash$$
$$097639773677236134725376295132109493984658344993440506480697154522317 66\backslash$$
$$964176989359291198740706516555036601\ prime$$

$$mh(83)_{2,\,717,\,2,\,420,}\,[91]^{318}+[318]^{91}$$
$$-944414742991078180328793647476110277156977224894352126624716997362205\backslash$$
$$907373539864618947794070377229180806718957263155275092737457978025055 92\backslash$$
$$674928626893971983602313870914760108585643303071006130443766646924784 00\backslash$$
$$870527002573969493013289850860152542639569169274338433231959245391689 50\backslash$$
$$083920042650400141651539860246334070695561485593540967338106998375765 30\backslash$$
$$672942734269719160075030272699070212523845801730134998951874005165533 46\backslash$$
$$222092601209366957696048505780973406515712894073891975378301129338177 44\backslash$$
$$563971338904230676781571901531009110285044573623155480728332644722833 84\backslash$$
$$935701597356486131240610277350970800295434406012792005353\ prime$$

$$mh(84)_{2,\,717,\,2,\,420,}\,[247]^{318}+[318]^{247}$$
$$=754451170341816907621342042268192069323948405517985703840611150910797\backslash$$
$$821020080945998807717433747240911969901551140487110742752398704307945 50\backslash$$
$$706399520981691412610123021244796947173910984348522514719820954139138 60\backslash$$
$$035629381049315130611148515754826180913520014097512515645921280195898 33\backslash$$
$$643162775519366181480538101726812250291743656722464400394518867784375 19\backslash$$
$$107861195486436055824490365437217498086635160147778961166026314120020 66\backslash$$
$$259880901544625158470287974597153050150809319953255880539357361990078 76\backslash$$

4 3D by M.I.

BIANCO

X=cos(u)*cos(v)

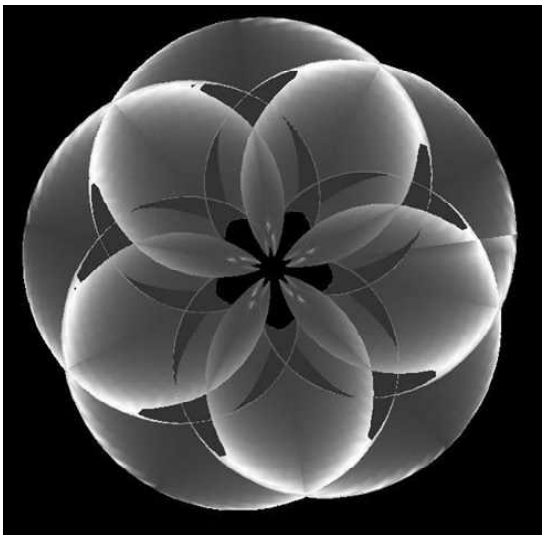
Y=1.29*4^sin(7*u-5*v)*0.8*cos(u)

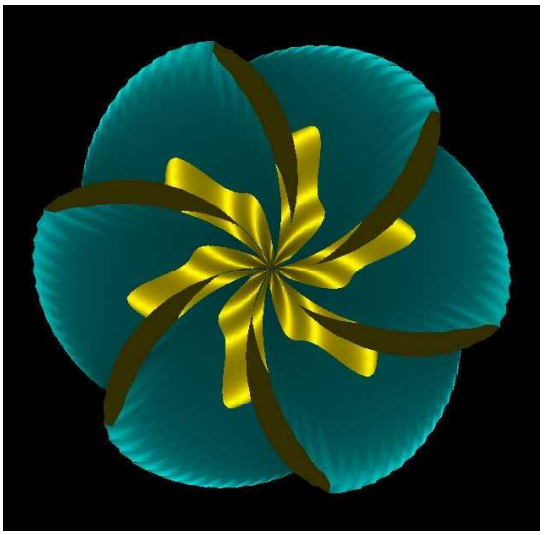
Z=cos(u)*sin(v)

x=cos(u)*cos(v)

y=pi^sin(u)*0.56*cos(6*u-6*v)

z=cos(u)*sin(v)





x=1.23*cos(5*u)*cos(v)*(abs(cos(5*u))^0.5
+ abs(sin(1.25*u))^0.5)^(-3.34)*(abs(cos(1.25*v))^1.6
+ abs(sin(1.25*v))^1.6)^(-10)

y=sin(u)*(abs(cos(1*u/4))^0.5
+ abs(sin(0.25*u))^0.9)^(-3.34)*sin(v)

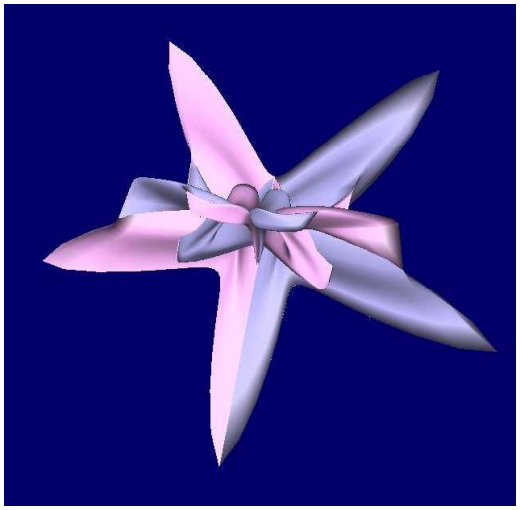
z=cos(u)*sin(v)*(abs(cos(0.25*u))^0.5
+ abs(sin(0.25*u))^0.5)^(-1/0.3)*(abs(cos(1.25*v))^1.67
+ abs(sin(1.25*v))^1.6)^(-10)

Abbraccio di farfalle...

x=cos(5*u)*0.67*cos(2*v)

y=0.52*sin(3*u)*sin(v)*cos(2*v)

z=0.8*cos(7*u)*sin(3*v)

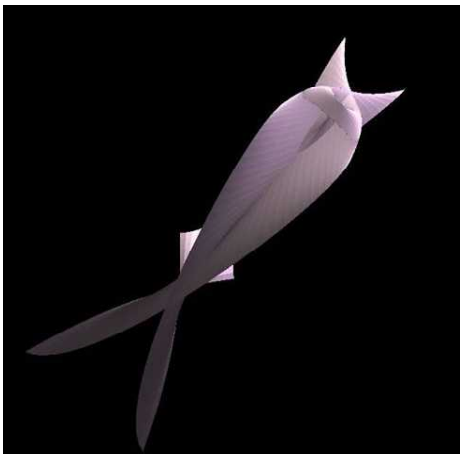


Fish

X=0.34*(2.8*u -u^3/7 +0.9* u*v^2)*cos(u)*cos(v)

Y=0.6*(1.9*u^2 -1.1*v^2)*sin(u)^2

Z=(v -2.3*v^3/5 + 0.9*v*u^2)*cos(2*u)*sin(v/2)

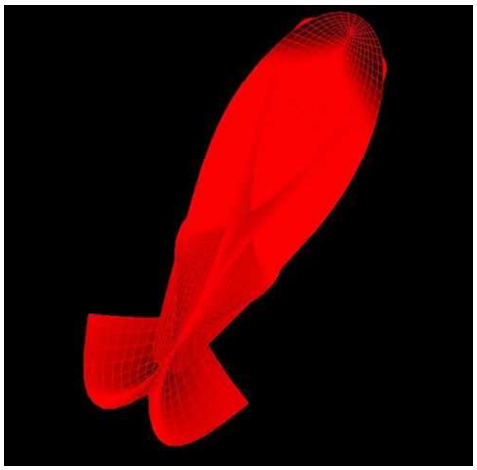


Red fish

X=0.34*(2.8*u -u^3/7 +1.9* u*v^2)*2*cos(u)*cos(v)

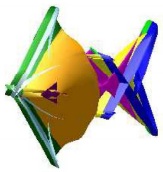
Y=0.5*(2.9*u^2 +2*v^2)*sin(u)^2

Z=(v -2.3*v^3/5 +1.1*v*u^2)*cos(2*u)^3*sin(v/2)



5 SPFG 3D by H.E

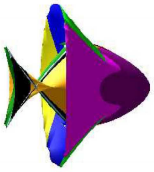
$$\sin(5\sin(u)^6\cos(v)+6)+2\sin(u)\cos(v)^6+3$$



"SFG fish by H.E", $No(5)$, $H=[6]$, $OT=[156, 78]$

$SPF=\sin(5\sin(u)^6\cos(v)+6)+2\sin(u)\cos(v)^6+3$ **(5)**

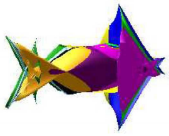
$$\sin(5\sin(u)^3\cos(v)+3)+2\sin(u)\cos(v)^3+3$$



"SFG fish by H.E", $No(2)$, $H=[3]$, $OT=[168, 84]$

$SPF=\sin(5\sin(u)^3\cos(v)+3)+2\sin(u)\cos(v)^3+3$

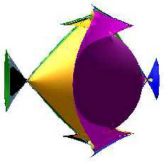
$$\sin(5\sin(u)^4\cos(v)+4)+2\sin(u)\cos(v)^4+3$$



"SFG fish by H.E", $No(3)$, $H=[4]$, $OT=[164, 82]$

$SPF=\sin(5\sin(u)^4\cos(v)+4)+2\sin(u)\cos(v)^4+3$

$$\sin(5\cos(v)\sin(u)^2+2)+2\sin(u)\cos(v)^2+3$$



"SFG fish by H.E", $No(1)$, $H=[2]$, $OT=[172, 86]$

$SPF=\sin(5\cos(v)\sin(u)^2+2)+2\sin(u)\cos(v)^2+3$

In Italiano by M.I

Parallelismo

In una canzone taliana, a dire il vero poco famosa, ma che mi piace molto, Erica Boschiero canta:

“Credo nell’ amore libero e nell’ opportunità che due rette parallele un giorno chissà mai si incontrino, fissino un appuntamento e chissà poi che nascerà…”.

In realtà nella geometria euclidea quest’ opportunità non esiste. Il parallelismo, col relativo V postulato di Euclide, è il concetto cardine su cui si fonda tutta la geometria classica. Basti pensare ai teoremi sull’ equivalenza dei parallelogrammi. Secondo i canoni della concezione classica, aristotelica il V postulato non si può considerare evidente, come si addice ai principi di una teoria scientifica. Il che ha indotto ad una sua crisi, con l’ introduzione di nuove geometrie, dette perciò non euclidee: in particolare la geometria iperbolica, con la negazione del postulato stesso. In quest’ ultima si conserva però l’ assioma euclideo che per due punti distinti passa una e una sola retta.

Le tre geometrie:euclidea, iperbolica ed ellittica, in cui al triangolo viene attribuita la proprietà di avere somma degli angoli interni rispettivamente uguale, minore, maggiore di due angoli retti, sono coerenti ma evidentemente contraddittorie. Ricordiamo che la dimostrazione che “la somma degli angoli interni di un triangolo” è uguale ad un angolo piatto si serve proprio del postulato delle parallele. Poincarè aveva sostenuto che la geometria euclidea e quindi l’ assunzione del parallelismo, sarebbe stata in ogni caso la più comoda. Lo è in effetti per le nostre esigenze quotidiane. In ambito di fisica relativistica si rivela più comoda la geometria ellittica , come Einstein dimostra nella teoria della relatività generale.

In English

Parallelism

In an Italian song, to tell the truth a little famous, but that I like very much, Erica Boschiero sings:

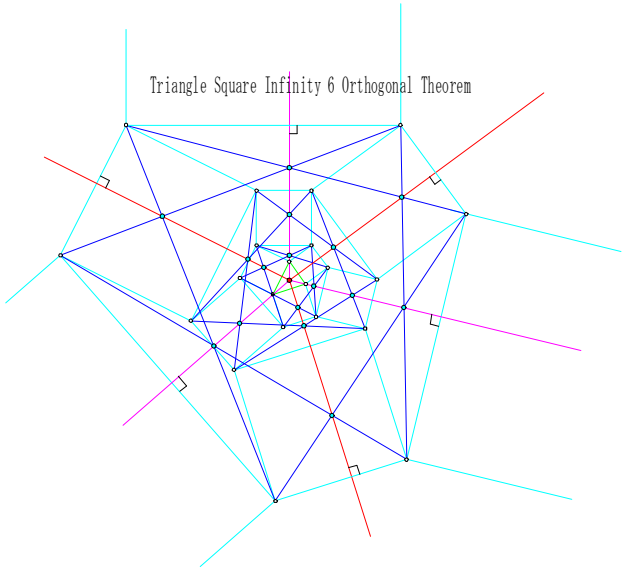
"I believe in free love and the opportunity that two parallel lines, never knows, one day meet, fix an appointment and who knows what will come ...".

In fact in Euclidean geometry this opportunity does not exist. The parallelism with the relative Euclid's fifth postulate, is the key concept on which all the classical geometry. Just think of the theorems on the equivalence of parallelograms. According to the canons of classical conception, Aristotelic, the fifth postulate can not be considered obvious, as befits the principles of a scientific theory. Which has led to its crisis with the introduction of new geometries, and therefore called non-Euclidean: in particular, hyperbolic geometry, with the negation of the fifth postulate. In this' last will, however, retains the Euclidean axiom that for two distinct points passes one and only one straight line.

The three geometries: Euclidean, hyperbolic and elliptic, in which to the triangle is assigned the property to have the sum of the interior angles respectively equal to, less than, greater than two right angles, are consistent but evidently contradictory. Recall that the demonstration that "the sum of the interior angles of a triangle" is equal to a straight angle, you need right of the parallel postulate. Poincaré had argued that Euclidean geometry and thus the assumption of parallelism, in any case would have been the most comfortable. It is in fact for our daily needs. In the field of relativistic physics proves more convenient elliptic geometry, as shown in the Einstein theory of general relativity.

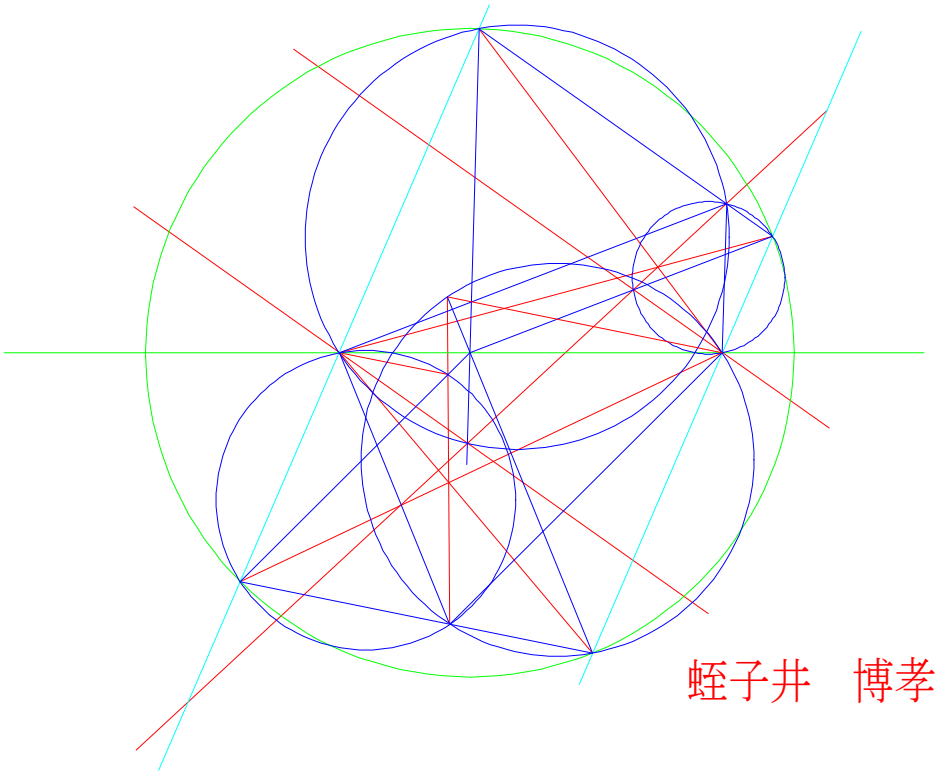
"Paralell" by H.E

平行線は、無限性のいい例である。、数学上には、無限と有限が出てくるが、無限大と有限の数値に対応し、不思議な、思いになる。無限宇宙を想像することは、何か神妙な気持ちになる。この気持ちが、なければ,夢多く無限に文明は進歩しないと思う。
どこまで行っても交わらない、どこまで行っても離れない。等間隔空間の存在は、何ともいえない、単純性を感じる。3 つの平行線の 6 交点が、楕円上にあることを使い、定理を円から楕円に今回書き換えられた。いつまでたっても役立つだろう。平行線の無限性は、非ユークリッドで、変な有限性を持ったが、私は無限性のまま、時代が進歩することを願ってやまない。6 垂線の正方形の辺の平行無限拡大が、新たな数学を生むだろう。
ここに、6 垂線の定理を掲載する



Paralel lines are a good Example of Infinity.in mathe field, there are infinity and finity,and it related to number infinity and finity,and we feel strangeness for them.when we image Cosmos is endless,we can guess Science will have endless progress.Paralell lines never closs in far far.....
Paralell never separates in far far a way. That To keep same distance between paralell lines is un imagable simplisity,we think. 6 closs points of 3 paralell pair lines exsit on one ellipse,and this fact make theorem changed.so,this theorem will be useful foever.Paralell lines have finity-strangeness by nonEuclid geometry,but I hope time will walk with the infinity of Paralell lines.
At Last, our Theorem of 6 ortholines clossing on one point have the infinity extension of Square Edge Paralell,and this will give New mathe concepts. Here is the Theorem.Enjoy this.

7 DOVAL

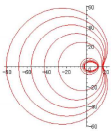


中途図形

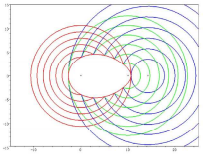
蛭子井　博孝

About Oval （Doval）

Hirotaka Ebisui
Oval Research Center
IWAKUNI near HIROSHIMA



Confocal Doval
共焦点 Doval



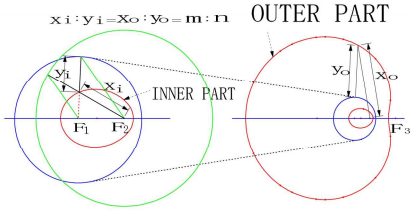
Three focus points
Trade Mark （E_R=0.9,E_L=0.6）

2． Definition of Doval

We call inner and outer part of Oval as DOVAL

Inner and Outer Part of the Oval =Doval

$x_i : y_i = x_o : y_o = m : n$ OUTER PART



$$m r_1 \pm n r_2 = k c$$

Fig.4. Definition of Doval using Ratio and Director Circle

Radius of Director circle = kc/m, kc/n

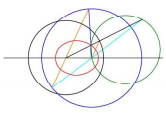
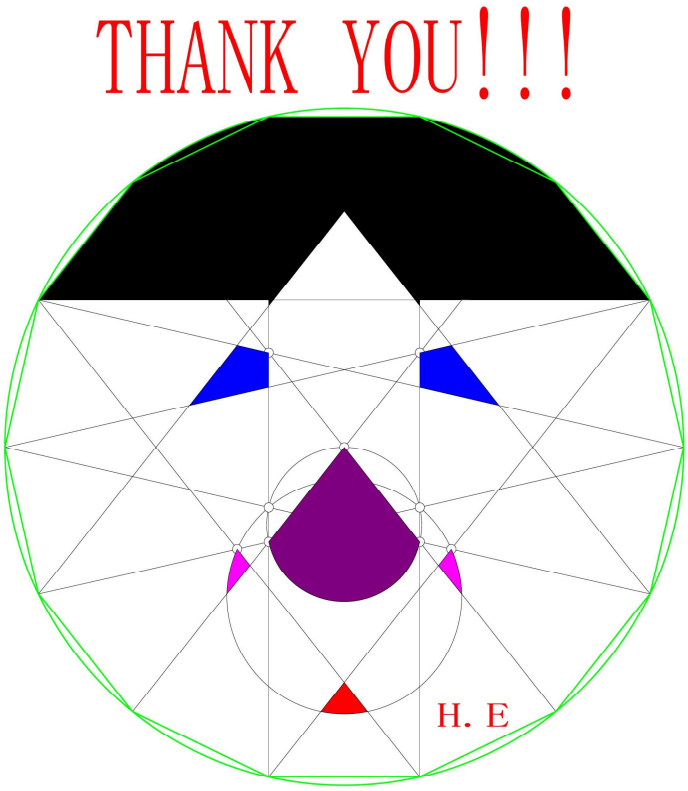


Fig.5 Doval innnerpart defined by two director circles

8 Geomec 14



数学日記

geoMathe Diary 38th

IDEAL and Passion No.11

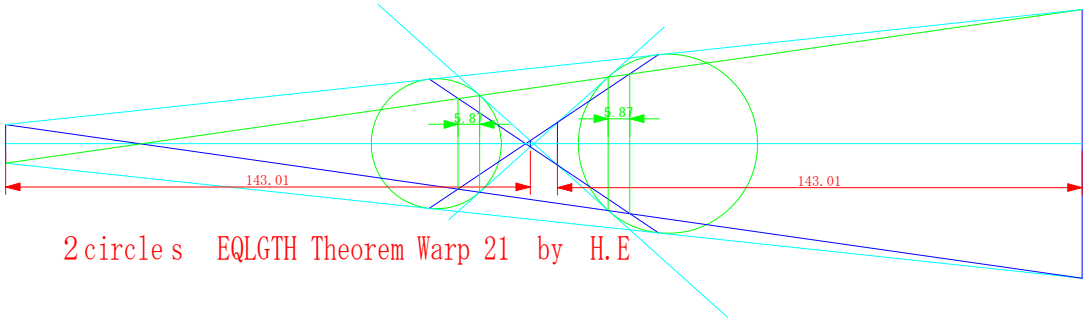
Hirotaka Ebisui ,Maria Intagliata

Star

by M.I

contents

5/28 今回で 11 回,DOC の代わりに、
改めて、自己紹介を載せました。
3.の正三角形は、力作と自負している
4．の数表　3 ページ使う 5，6 は，いつもの調子
今日から、梅雨が始まっている。
薄暗き部屋に明るい Display、梅雨でも動く我かの宝
なお、これを掲載しているブログ凸凹 LIPY として、
新装開店しました。http://hoval.blogzine.jp/です。
今回もできそう。あいがとう　　（H.E）



2circles EQLGTH Theorem Warp 21 by H.E

卵形線研究センター
http://hoval.blogzine.jp/

2013-5-30

2. Let us introduce by our self

In Italiano

Mi presento

Io, Maria Intagliata, nata a Siracusa, la bella città di Archimede, il 17/7/1950, mi ritengo una donna fortunata. Ho una bella figlia ed un marito favoloso e ho fatto nella vita quello che da sempre avrei voluto fare: l'insegnante di matematica. Ho dovuto lottare molto per realizzarmi ed oggi, in pensione, vengo ripagata, soprattutto dagli affettuosi messaggi di stima dei miei ex studenti su FB. E' viva in me la passione per la matematica e il mio lavoro, quasi sempre al primo posto, sacrificando la famiglia. Grazie alle mie creazioni in 3D online, ho incontrato un matematico e un uomo straordinario: il Prof.Hirotaka Ebisui. Un tipo strano? E' un eufemismo, ma adesso è il mio più caro amico. E' l'amante più appassionato e ricambiato della Regina delle Scienze che io abbia mai conosciuto. Date un'occhiata a questo blog e mi darete ragione.

In English

I introduce myself

I, Maria Intagliata, born in Syracuse, the beautiful city of Archimedes, on the 7/17/1950, I consider myself a lucky woman. I have a beautiful daughter and a fabulous husband and I have done in my life that I have always wanted to do: the math teacher. I had to struggle a lot to realize myself and now, in retirement, I am rewarded, particularly by the affectionate messages estimation of my former students on FB. Is alive in me the passion for mathematics and my work, almost always in first place, sacrificing family. Thanks to my creations in 3D online, I met a mathematician and an extraordinary man: the Prof.Hirotaka Ebisui. A strange? It is an euphemism, but it is my dearest friend now. He's the most passionate lover and returned of the Queen of Sciences that I have ever known. Take a look at this blog and I'll agree.

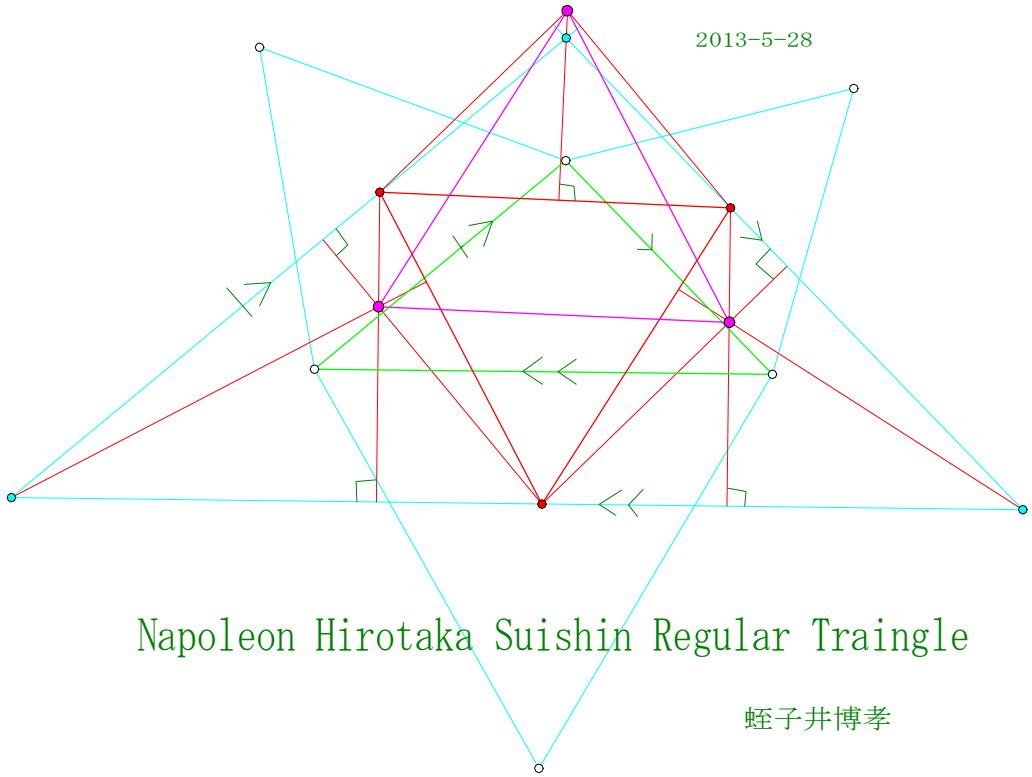
蛭子井博孝

1950-4-20 生まれ 19 歳から幾何に没頭応用物理を出るが、数学の教師をしその後高等研究機関の研究員そして再び教師、1995 年退職後卵形線研究センターを開設以後研究業一筋最近マリア女史に出会い，楽しく数学をしている。成果は、この日記にて公開。

Iwas born in 1950-4-20, at 19 year old I became crazy about geometry. I studied Applied Physics in University,but I was a teacher of high school,twice. Between the two I was a researcher of Advanced Research Laboratory,after retire,at 1995, I opened Oval Reaseach Center,and I researched Geometry of Oval and some etc. Resenty I met Maria Research,and we enjoy mathe.my and her results are opened here.

3 on Regular Triangle Theorems

蛭子井博孝



Napoleon Hirotaka Suishin Regular Traingle

蛭子井博孝

```
> # num by.he:
> for n from 2 to 10000 do ft := n : fp := 2 : nc := 0 : H := 0 :for p from 1 to ft do if ft = 0
  then break elif ft mod fp = 0 then nc := nc + 1 : ft := ft/fp : H := H + fp : FT || nc := fp :
  else fp := nextprime( fp ) fi:od: : if nc ≠ 1 and floor(evalf(H^(1/2)))^2 = H
  then print(Num n[FCsum =[ [seq(FT || j, j = 1 ..nc) ], H]] =[simplify(H^(1/2)) ]^2) fi: od:
```

$$Num\ 4_{FCsum = [[2,\ 2],\ 4]} = [2]^2$$

$$Num\ 14_{FCsum = [[2,\ 7],\ 9]} = [3]^2$$

$$Num\ 20_{FCsum = [[2,\ 2,\ 5],\ 9]} = [3]^2$$

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5 3D by M.I

1.Red star

8*cos(u)*cos(v)*(abs(cos(2*v))^1.2+abs(sin(2*v)) ^1.2)^(-3.5)*(abs(cos(2*u))^1.2+abs(sin(6*u))^1.2)^(-2)

2*sin(sin(sin(sin(18*u))))*(abs(cos(2*u))^1.2 +abs(sin(6*u))^1.2)^(-2)

8*cos(u)*sin(v)*(abs(cos(2*v))^1.2 +abs(sin(2*v))^1.2)^(-3)*(abs(cos(2*u))^1.2 + abs(sin(6*u))^1.2)^(-2)

2. Mostriciattolo che somiglia ad un topo...

X=(u -u^3/3 + u*v^2)*cos(u)*cos(v)

Y=0.5*(u^2 - v^2)*sin(u)*sin(v)

Z=(v -v^3/3 + v*u^2)*cos(u)*sin(v)

3.Fractal star

X=8*cos(u)*cos(v)*(abs(cos(2*v))^1.2+abs(sin(2*v)) ^1.2)^(-3.5)*(abs(cos(2*u))^1.2+abs(sin(2*u))^1.2)^(-3)

Y=2*sin(sin(sin(sin(sin(18*u))))*(abs(cos(2*u))^1.2 +abs(sin(2*u))^1.2)^(-3)

Z=8*cos(u)*sin(v)*(abs(cos(2*v))^1.2 +abs(sin(2*v))^1.2)^(-3)*(abs(cos(2*u))^1.2 + abs(sin(2*u))^1.2)^(-

4.STAR

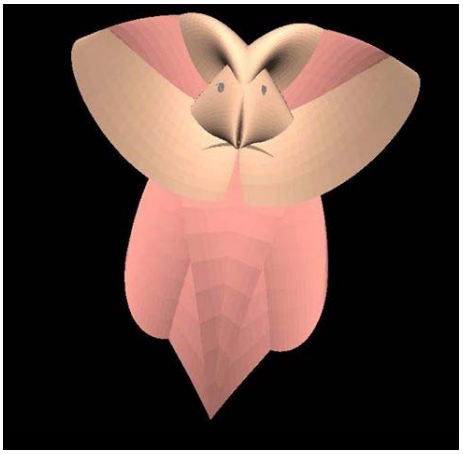
X=8*cos(u)*cos(v)*(abs(cos(2*v))^1.2+abs(sin(2*v))))^1.2)^(-3)*(abs(cos(2*u))^1.2+abs(sin(2*u))^1.2)^(-3)

Y=2*sin(u)*(abs(cos(2*u))^1.2 +abs(sin(2*u))^1.2)^(-3)

Z=8*cos(u)*sin(v)*(abs(cos(2*v))^1.2 +abs(sin(2*v))^1.2)^(-3)*(abs(cos(2*u))^1.2 + abs(sin(2*u))^1.2)^(-3)

1

2



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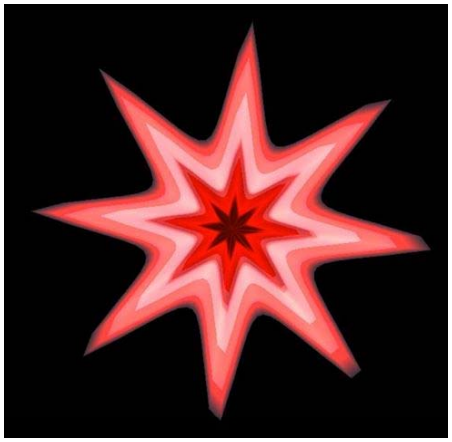
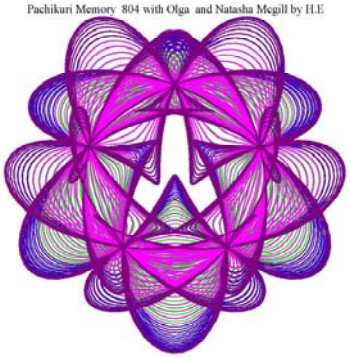


6 2D 3D BY H.E

Pachikuri Memory 804 with Olga and Natasha Mcgill by H.E



BGT = "08-25 (12:55:01 PM)", [29], HEB = [3, 5, 1]

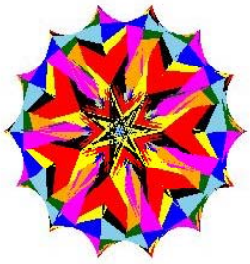
$$X = \sin(402\,t) + \sin(1005\,t)\,\sin(268\,t)\,\cos(t)$$
$$Y = \cos(402\,t) + \sin(1005\,t)\,\cos(268\,t)\,\cos(t)$$
$$\left[t = 0..2\,\pi,\ st = \frac{1}{8}\right]$$ 蛙子井博孝

Pachikuri Memory 804 with Olga and Natasha Mcgill by H.E

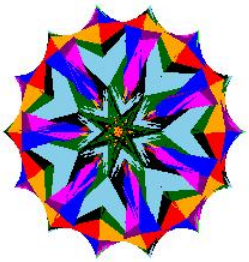
BGT = "08-25 (12:53:49 PM)", [8], HEB = [1, 4, 2]

$$X = \sin(134\,t) + \sin(804\,t)\,\sin(201\,t)\,t$$
$$Y = \cos(134\,t) + \sin(804\,t)\,\cos(201\,t)\,t$$
$$\left[t = 0..2\,\pi,\ st = \frac{1}{8}\right]$$ 蛙子井博孝

Pachikuri 3D p112 420 ADD 2-Star defined by H.E



Pachikuri 3D p112 420 ADD 2-Star defined by H.E



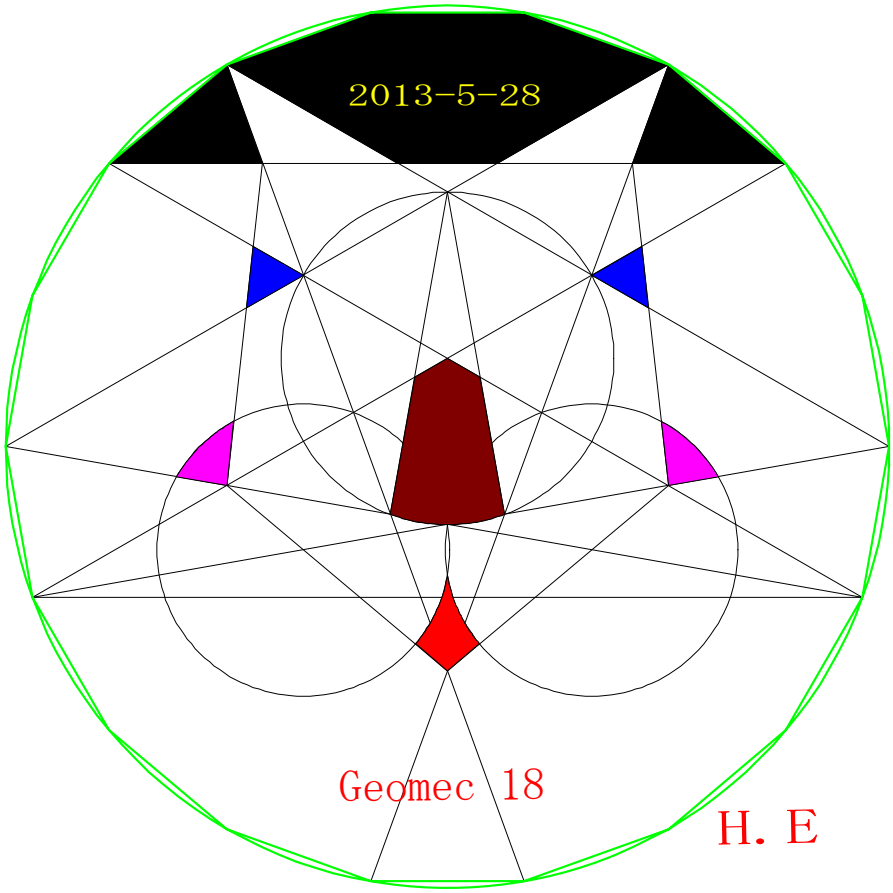
7 Doval Property BY H.E

The definition of Doval are extended Curves（of elilipse） that have constant ratio between two distance , from a points and a circle, and Doval can be defined and drawed by circle and paralell lines. Now we found more than 5 diffirent Draw methods. This have right and left excentlicity, 3 foci, and one asymmetry axes. Area of Doval is defined as sum of in and out closed area.and Doval is also defined as the projection on axes direction plain of intersection of two conic that have different vertex angles and paralell sysmtery axes. and the tangent lines on a point on Doval can be defined and drawed by some Compositions. As forth oder algeblic curves, Doval are expressed by xy cordinate. Doval is also extended to The Curve that have more than 3 foci named as Chocoid,and Tajicoid.Doval have an Invariant Equation.

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

8 GEOMEC 18 +Peom

Thank you!!!



梅雨はしり　出会った人と　幾何談義

Rain season began,
on just the day,
we met in JR,
and talk about gemetry with smile.

数学日記

geoMathe Diary 39th

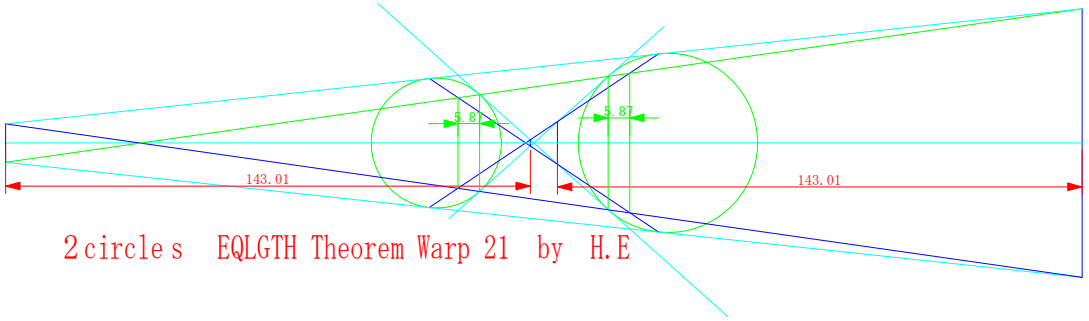
IDEAL and Passion No.12

Hirotaka Ebisui and Maria Intagliata

Spiral

contents

6-3 39th diary の DeadLine。Mari から Circle の doc を受け取った。Myblog の改正をして、きょうは、この編集に取りかかる。マリアさんの方は終わっている。わたしの、３，５，６，７がまだである。
忙しく、日記の原稿創れども.人の手になる,我らの日記、覚悟 の上。とにかく人のために献身的にやるだけだ。自分の手柄なんかに成りはしない.しかし、神様もお見通し。ああ、良き良き、人生、自嘲的になっている.ごめんなさい。(H.E)

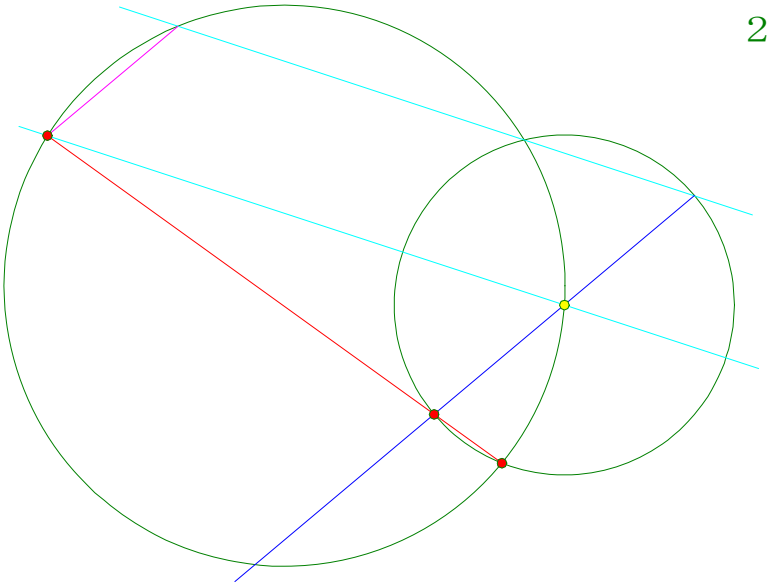


卵形線研究センター
http://hoval.blogzine.jp/

2 on 2 Circles

Two circle one Paralell theorem

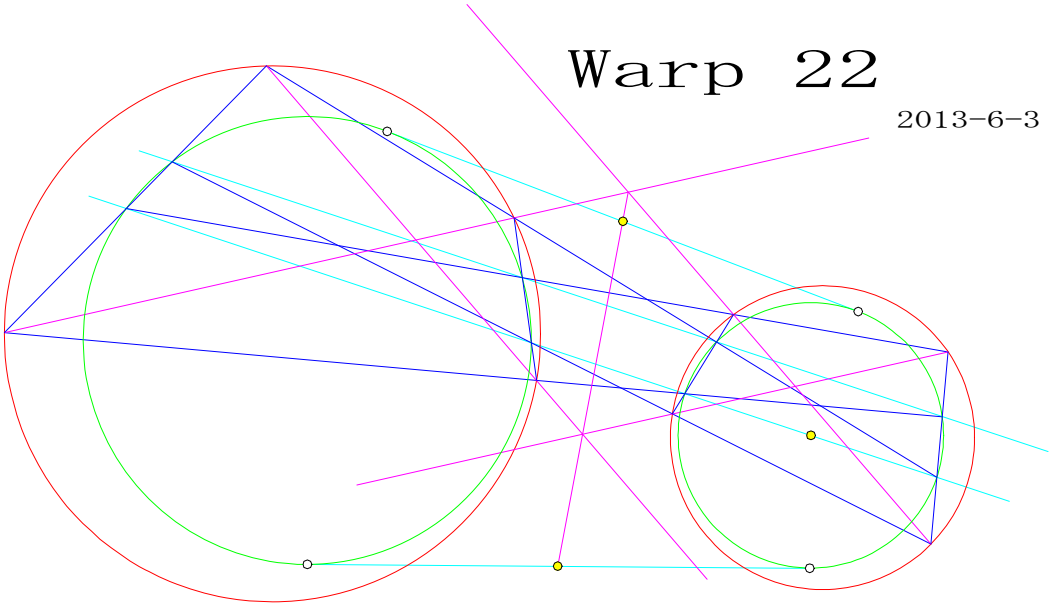
2013-6-3



蛭子井博孝

Warp 22

2013-6-3



蛭子井博孝

```
> # number factolize PG and sumH^FcH = H^m by H.E :
>
> ifactor(603);
```

$$(3)^2\,(67) \tag{1}$$

```
> for m from 2 to 13 do for n from 2 to 3125 do ft := n : fp := 2 : nc := 0 : SHfc := 0 : sfc
  := 0 : for p from 1 to ft do if ft = 0 then break elif ft mod fp = 0 then nc := nc + 1 : ft
  := ft/fp : FT || nc := fp : SHfc := SHfc + fp^fp : sfc := sfc + fp :else fp := nextprime( fp)
  fi:od: NF := [seq(FT || j, j = 1 ..nc) ] :if floor(evalf(SHfc^(1/m)))^m = SHfc then SHH := 0 :
  for e from 1 to nc do SHH := SHH + [FT || e]^(FT||e) :od: print(n = NF, SHH
  = {simplify(SHfc^(1/m))}^m) fi: od:od:
```

$$2 = [2],\ [2]^2 = \{2\}^2$$
$$16 = [2, 2, 2, 2],\ 4\,[2]^2 = \{4\}^2$$
$$27 = [3, 3, 3],\ 3\,[3]^3 = \{9\}^2$$
$$512 = [2, 2, 2, 2, 2, 2, 2, 2, 2],\ 9\,[2]^2 = \{6\}^2$$
$$3125 = [5, 5, 5, 5, 5],\ 5\,[5]^5 = \{125\}^2$$
$$3 = [3],\ [3]^3 = \{3\}^3$$
$$4 = [2, 2],\ 2\,[2]^2 = \{2\}^3$$
$$3125 = [5, 5, 5, 5, 5],\ 5\,[5]^5 = \{25\}^3$$
$$16 = [2, 2, 2, 2],\ 4\,[2]^2 = \{2\}^4$$
$$27 = [3, 3, 3],\ 3\,[3]^3 = \{3\}^4$$
$$5 = [5],\ [5]^5 = \{5\}^5$$
$$256 = [2, 2, 2, 2, 2, 2, 2, 2],\ 8\,[2]^2 = \{2\}^5$$
$$3125 = [5, 5, 5, 5, 5],\ 5\,[5]^5 = \{5\}^6$$
$$7 = [7],\ [7]^7 = \{7\}^7$$
$$2592 = [2, 2, 2, 2, 2, 3, 3, 3, 3],\ 5\,[2]^2 + 4\,[3]^3 = \{2\}^7$$
$$11 = [11],\ [11]^{11} = \{11\}^{11}$$
$$13 = [13],\ [13]^{13} = \{13\}^{13}$$

(2)

```
> What is This NUMTable Meaning?. I want to ask this to All who read this Pg OutPut List. I
  want know this meaning. 7^7=7^7
```

4 3D by M.I

1.Spirale...

x=1.15^v*(sin(u)^2 *sin(v))

y=1.15^v*sin(sin(sin(sin(sin(sin(8*u-5*v)))))) *cos(16*u))^2

z=1.15^v*(sin(u)^2 *cos(v))

2.Butterfly on flower...

x=1.15^v*(sin(u)^2 *sin(v))

y=1.15^v*(sin(sin(sin((sin(sin(sin(7*u-7*v)))))) *cos(7*v-5*u)^2)

z=1.15^v*(sin(u)^2 *cos(v))

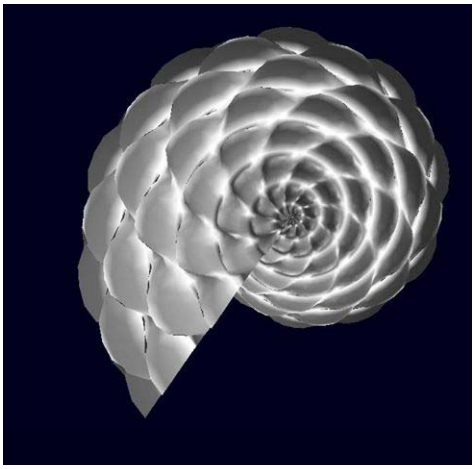
3.White flower

x=3.5*cos(u) *cos(v) *sin(v)

y=2*sin(u) *sin(2*v)

z=0.8*pi^cos(sin(cos(7*u-7*v))) *sin(6*v-5*u)

1

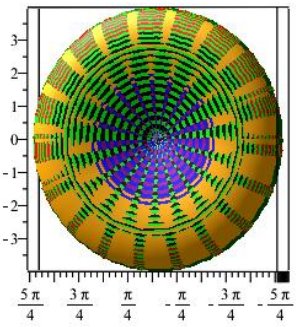


2

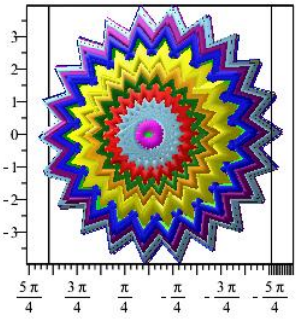
3

5 3d by H.E

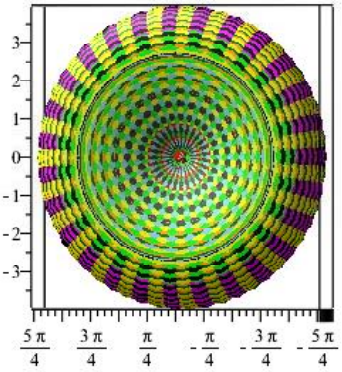
mh-Star byH.E



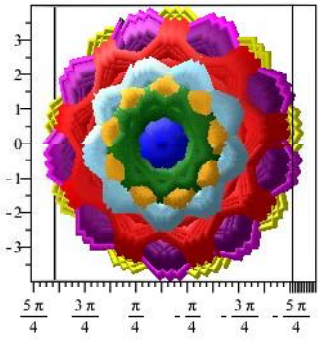
mh-Star byH.E



mh-Star byH.E



mh-Star byH.E



```
> with(plots);
> CP := [red, yellow, blue, green, magenta, "Purple", "Orange", "DarkGreen", "SkyBlue", black];
> ifactor(507);
> for n to 20 do PS || n := evalf(fsolve(S^Pi-Pi^n = 0, S), 5); print([PS || n]^Pi = Pi^n) end do;
> c := 0; for h to 8 do for m to 13 do c := c+1; for ds to 10 do x := 4*cos(PS || m*u)*sin(PS || h*v); y := sin(PS || m*v)*cos(PS || h*v); z := 4*sin(PS || m*u)*sin(PS || h*v); EQG || ds || c := plot3d([x, y, z], u = 0 .. 2*Pi, v = (1/10)*(2*(ds-1))*Pi .. 2*Pi*ds*(1/10)+2*Pi*(1/10), color = CP[`mod`(ds+c+1, 10)+1], numpoints = 800, orientation = [90+20, 90], scaling = constrained, style = surface, title = " mh-Star byH.E") end do; print(display(seq(EQG || j || c, j = 1 .. 10))); print("mh-Star by H.E", No(c), HM = [h, m]); print(X[c] = x); print(Y[c] = y); print(Z[c] = z) end do end do;
```

6 CIRCLE

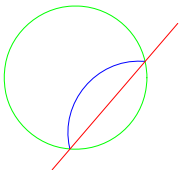
In Italiano Il cerchio by Maria Intagiata

Il cerchio è la figura per eccellenza della geometria , di cui sembra rappresentare la perfezione e la bellezza. Ma è anche la figura che più ha impegnato ed affascinato il pensiero matematico e non solo, fin dalle origini. E' centrale nell'opera di Platone, ma pure del filosofo Ralph Waldo Emerson, che, nel suo saggio "Circles", introduce la figura di cerchi in espansione, come simbolo dell'avanzamento dello spirito. E per Niccolò Cusano l'uomo non potrà mai conoscere Dio finché è in questa vita, ma nell'infinito può risolversi in identità col cerchio, cioè con l'infinito stesso. Fu lo stesso Cusano, nell'opera "de quadratura circuli"a dimostrare l'impossibilità della quadratura del cerchio, evidentemente per il profondo legame della figura con la irrazionalità del pi greco. Com'è noto, tale problema, assieme alla trisezione dell'angolo e alla duplicazione del cubo, è stato per secoli oggetto di studio dei matematici, che hanno trovato risultati importanti sia nel calcolo integrale dell'area che del perimetro del cerchio. Vi sono, poi, cerchi molto nobili, come quello "dei nove punti", col relativo triangolo di Feurback (formato dai tre punti di tangenza del cerchio con gli excircles di Kimberling), i cerchi di Morley, di Apollonio, ma anche di Napoleon, molto cari e familiari al Prof. Ebisui. E che dire del "disco di Poincarè", in cui è rappresentata la geometria iperbolica, con una tassellazione poligonale del piano, come in molte opere litografiche di Escher.

In English

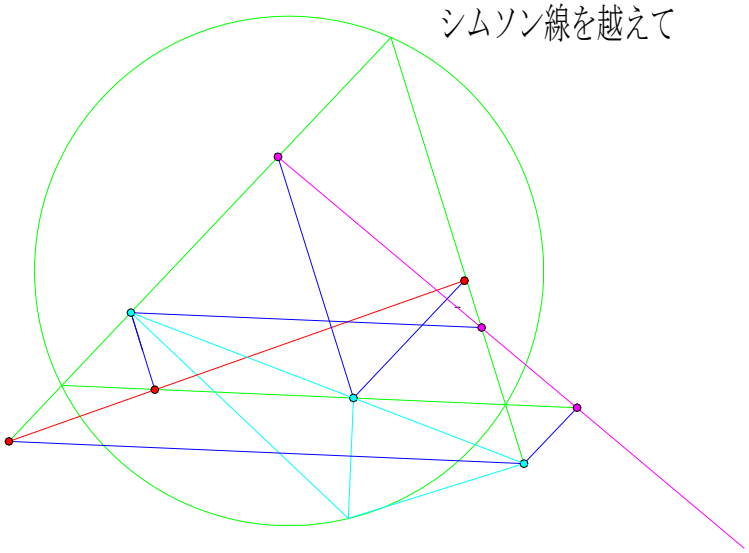
The circle is the figure par excellence of geometry, which seems to represent the perfection and beauty. But it is also the figure that most engaged and fascinated mathematical thinking and not just, from the beginning. It's central in the work of Plato, but also of the philosopher Ralph Waldo Emerson, who, in his essay "Circles", introduces the figure of expanding circles as a symbol of how far the spirit. And to Nicholas of Cusa man can never know God as long as he is in this life, but in the infinite can result in identity with the circle, that is the same with the infinite. It was the same Cusa, in his work "de quadrature circuli" to demonstrate the impossibility of squaring the circle, apparently to the deep bond of the figure with the irrationality of pi greek. As is well known, this problem, together with the trisection of the angle and the duplication of the cube, was for centuries the object of study of mathematicians, who have found significant results in both the integral calculus of the area of the perimeter of the circle. There are, then, looking very noble, such as the one "of the nine points," with its triangle Feurback (formed by the three points of tangency of the circle with the excircles of Kimberling), the circles of Morley, Apollonius, but also of Napoleon, very dear and familiar to Prof. Ebisui. There's, then,"Poincaré disk", that represents hyperbolic geometry, with a polygonal tessellation of the plane, as in many lithographic works of Escher.

円　by Hirotaka Ebisui



円とは何か、１．一点から等距離にある店の集まり
２．周が一定で、面積最大のもの
３．2 つに折り曲げたら、大きい方に小さい方が含まれ、はみ出さないもの。
円は、2 直線の上の 3 点づつ、6 点の定理を、円周上 6 点に置き換えられる。このようなすべての定理は、何か、まだ不明。
円と三角形で、有名な定理に、シムソンの定理がある。この定理が、最近平行線を付加して、新しい 2 つの共線を得た。
ここにその図を載せる
後、円と円周率については、多くの本がある。

垂直右回り平行蛭子井線と垂直左回り平行蛭子井線
シムソン線を越えて



Circle is defined by 3 Method.
one is that same length points from one points
two is that bigest area figure with same circumference
three .see figure that show biger part inclode smaler part.
As circlce and triangle theorem Simon theorem is famous.
This is reconstructed by paralell lines showing it on upper figure.

7 Minor Axes of Doval

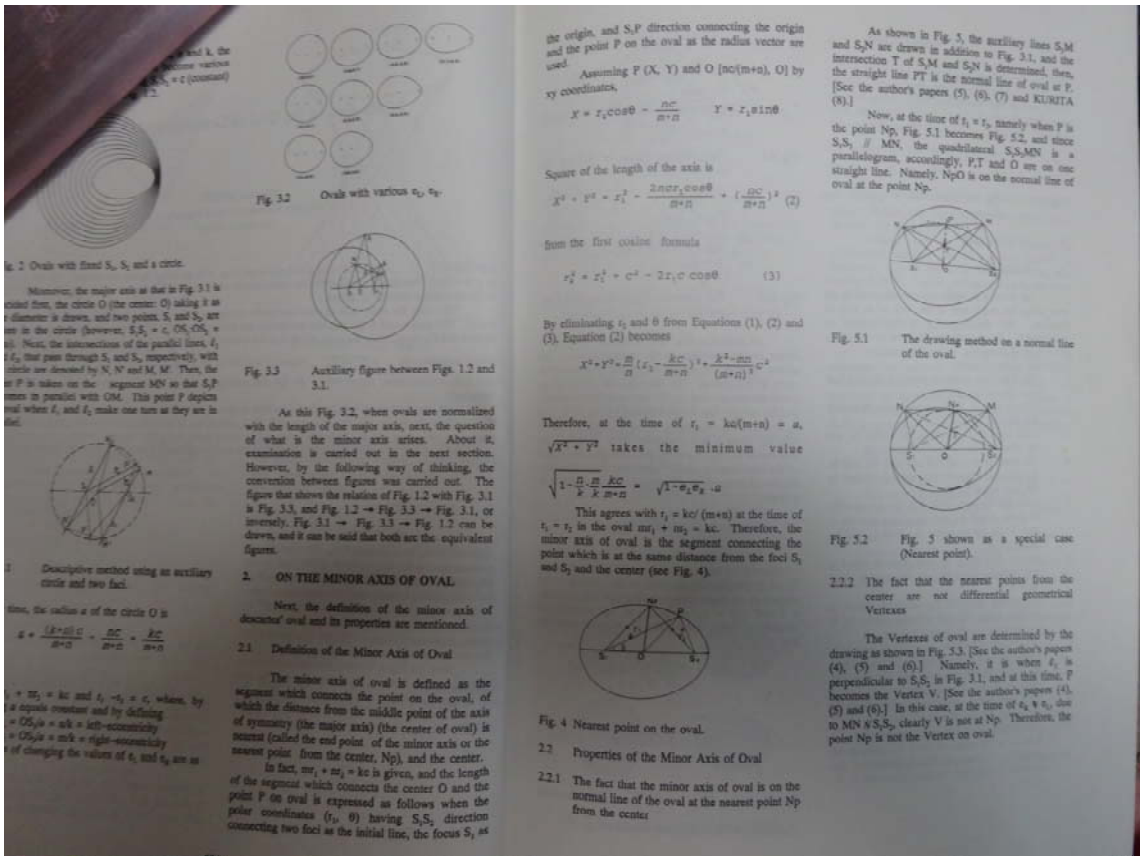


Fig. 3.2 Ovals with various e_1, e_2

Fig. 3.3 Auxiliary figure between Figs. 1.2 and 3.1.

As this Fig. 3.2, when ovals are normalized with the length of the major axis, next, the question of what is the minor axis arises. About it, examination is carried out in the next section. However, by the following way of thinking, the convention between figures was carried out. The figure that shows the relation of Fig. 1.2 with Fig. 3.1 is Fig. 3.3, and Fig. 1.2 → Fig. 3.3 → Fig. 3.1, or inversely, Fig. 3.1 → Fig. 3.3 → Fig. 1.2 can be drawn, and it can be said that both are the equivalent figures.

2. ON THE MINOR AXIS OF OVAL

Next, the definition of the minor axis of descartes' oval and its properties are mentioned.

2.1 Definition of the Minor Axis of Oval

The minor axis of oval is defined as the segment which connects the point on the oval, of which the distance from the middle point of the axis of symmetry (the major axis) (the center of oval) is nearest (called the end point of the minor axis or the nearest point from the center, Np), and the center.

In fact, $mr_1 + nr_2 = kc$ is given, and the length of the segment which connects the center O and the point P on oval is expressed as follows when the polar coordinates (r, θ) having S_1S_2 direction connecting two foci as the initial line, the focus S_1 as the origin, and S_1P direction connecting the origin and the point P on the oval as the radius vector are used.

Assuming P (X, Y) and O [nc/(m+n), 0] by xy coordinates,

$$X = r_1\cos\theta - \frac{nc}{m+n} \qquad Y = r_1\sin\theta$$

Square of the length of the axis is

$$X^2 + Y^2 = r_1^2 - \frac{2ncr_1\cos\theta}{m+n} + \left(\frac{nc}{m+n}\right)^2 \quad (2)$$

from the first cosint formula

$$r_2^2 = r_1^2 + c^2 - 2r_1c\cos\theta \quad (3)$$

By eliminating r_2 and θ from Equations (1), (2) and (3), Equation (2) becomes

$$X^2+Y^2=\frac{m}{n}\left(r_1-\frac{kc}{m+n}\right)^2+\frac{k^2-mn}{(m+n)^2}c^2$$

Therefore, at the time of $r_1 = kc/(m+n) = a$, $\sqrt{X^2 + Y^2}$ takes the minimum value

$$\sqrt{1-\frac{n}{k}\frac{kc}{m+n}} = \sqrt{1-e_1e_2}\cdot a$$

This agrees with $r_1 = kc/(m+n)$ at the time of $r_1 = r_2$ in the oval $mr_1 + nr_2 = kc$. Therefore, the minor axis of oval is the segment connecting the point which is at the same distance from the foci S_1 and S_2 and the center (see Fig. 4).

Fig. 4 Nearest point on the oval.

2.2 Properties of the Minor Axis of Oval

2.2.1 The fact that the minor axis of oval is on the normal line of the oval at the nearest point Np from the center

As shown in Fig. 5, the auxiliary lines S_1M and S_2N are drawn in addition to Fig. 3.1, and the intersection T of S_1M and S_2N is determined, then, the straight line PT is the normal line of oval at P. [See the author's papers (5), (6), (7) and KURITA (8).]

Now, at the time of $r_1 = r_2$, namely when P is the point Np, Fig. 5.1 becomes Fig. 5.2, and since S_1S_2 // MN, the quadrilateral S_1S_2MN is a parallelogram, accoedingly, P,T and O are on one straight line. Namely, NpO is on the normal line of oval at the point Np.

Fig. 5.1 The drawing method on a normal line of the oval.

Fig. 5.2 Fig. 5 shown as a special case (Nearest point).

2.2.2 The fact that the nearest points from the center are not differential geometrical Vertexes

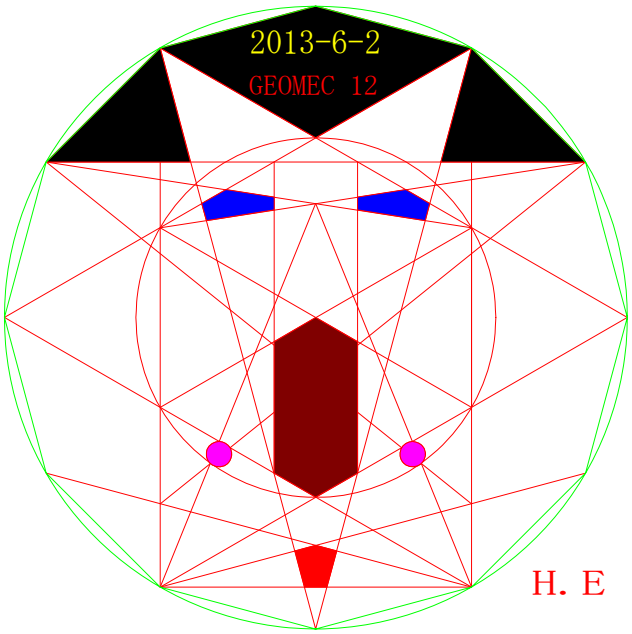
The Vertexes of oval are determined by the drawing as shown in Fig. 5.3. [See the author's papers (4), (5) and (6).] Namely, it is when r_1 is perpendicular to S_1S_2 in Fig. 3.1, and at this time, P becomes the Vertex V. [See the author's papers (4), (5) and (6).] In this case, at the time of $r_1 = r_2$, due to MN // S_1S_2, clearly V is not at Np. Therefore, the point Np is not the Vertex on oval.

prooceeding Vol.2 p324-p3
6th International Conference on Engineering Computer Graphics and Descriptive Geometry

8　　GEOMEC 12

in　３６ｔｈ

Thank you!!!



梅雨晴れ間いつもの調子日記編

Today Fine day in Rain Season

We write Geomath Diary as usual

（H.E）

Geomatics Diary 64-4th

about Phytagorus

蛭子井博孝
Maria Intagliata

Happy heart by M.I

contents

memo: 10-27　Gmd 64-4th start.
We plan about phytagorus. (x^2+y^2)^2+(z^2+w^2)^2=P^2 as HI-NUM.Now search start.see you later.
Found Found {[x,y,z,w,P]}.see section 1.
Next I found in Phytagorus figure a Cuncurent Point.
I chose 4 3d from Maria FB album. I chose my 2D.
Now I wait for DOC.

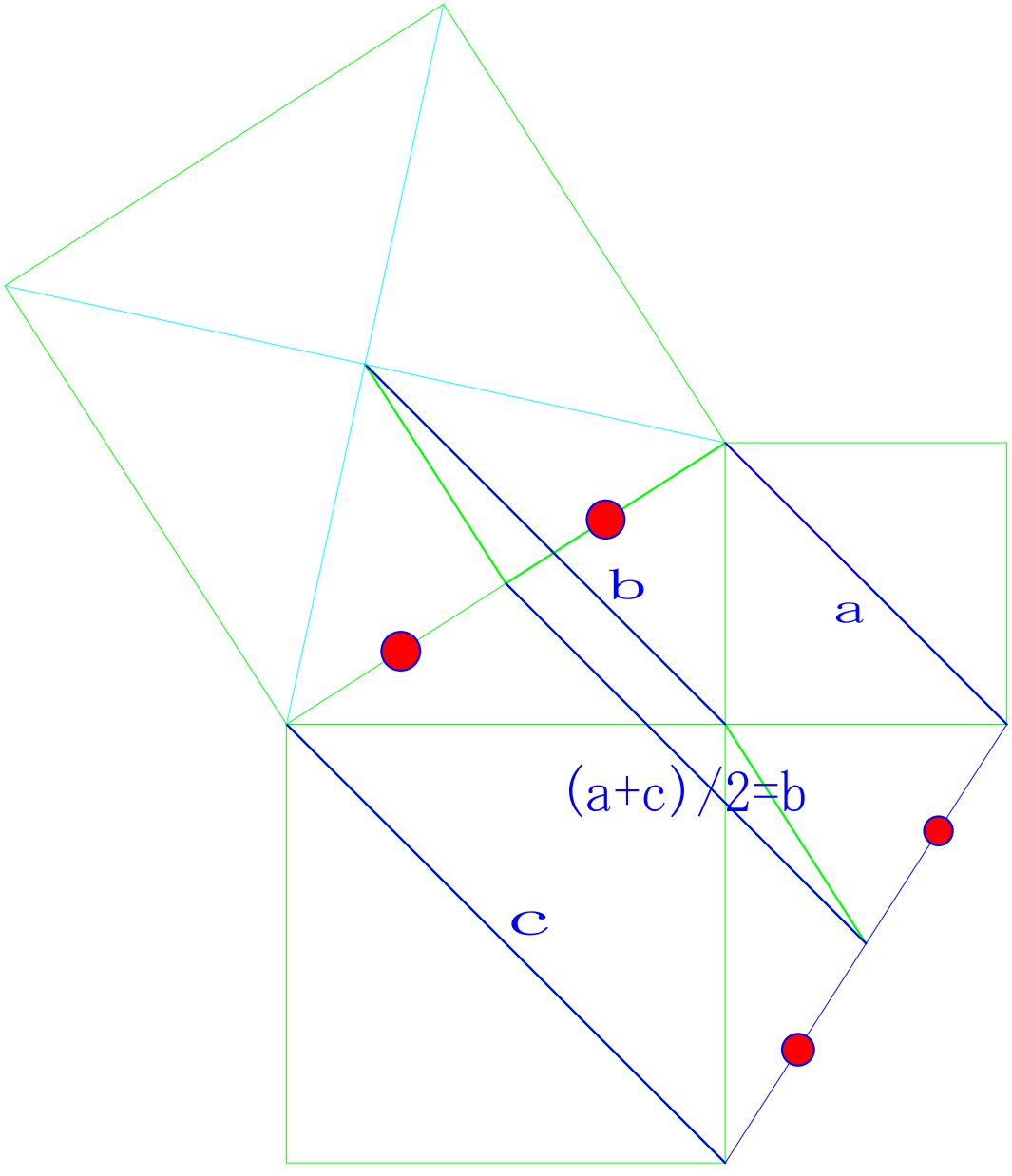
Contents -1.-

```
> # HI-NUM phytagorusby H.E:
> c := 0 :for x from 1 to 50 do for y from x to 50 do for z from y to 50 do for w from z to 50
  do PH := (x^2+y^2)^2+(z^2+w^2)^2 : if floor(evalf(PH^(1/2)))^2 = PH and PH < 1000000
  then print({{x}^2+[y]^2}^2+[{z}^2+[w]^2]^2=[simplify(PH^(1/2))]^2)fi:od:od:od:od:
```

$$\{\{2\}^2+[9]^2\}^2+[\{12\}^2+[24]^2]^2=[725]^2$$
$$\{\{3\}^2+[3]^2\}^2+[\{4\}^2+[8]^2]^2=[82]^2$$
$$\{\{3\}^2+[5]^2\}^2+[\{12\}^2+[12]^2]^2=[290]^2$$
$$\{\{3\}^2+[6]^2\}^2+[\{10\}^2+[10]^2]^2=[205]^2$$
$$\{\{3\}^2+[9]^2\}^2+[\{12\}^2+[16]^2]^2=[410]^2$$
$$\{\{3\}^2+[12]^2\}^2+[\{14\}^2+[22]^2]^2=[697]^2$$
$$\{\{6\}^2+[6]^2\}^2+[\{8\}^2+[16]^2]^2=[328]^2$$
$$\{\{6\}^2+[7]^2\}^2+[\{12\}^2+[24]^2]^2=[725]^2$$
$$\{\{6\}^2+[9]^2\}^2+[\{14\}^2+[18]^2]^2=[533]^2$$
$$\{\{6\}^2+[12]^2\}^2+[\{20\}^2+[20]^2]^2=[820]^2$$
$$\{\{9\}^2+[9]^2\}^2+[\{12\}^2+[24]^2]^2=[738]^2$$
$$\{\{12\}^2+[15]^2\}^2+[\{20\}^2+[20]^2]^2=[881]^2$$
$$\{\{14\}^2+[18]^2\}^2+[\{18\}^2+[21]^2]^2=[925]^2 \quad \textbf{(1)}$$

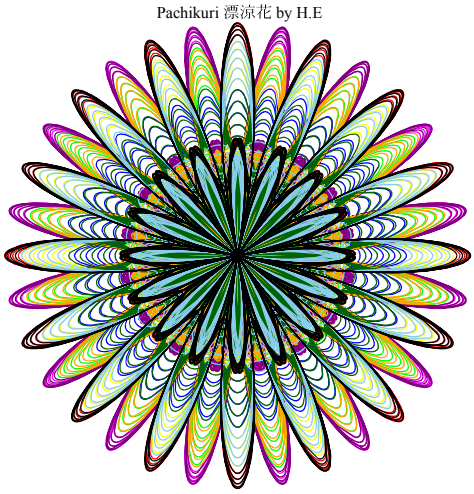
```
>
```

Phytagorus length Theorem



Contents -3.-

Pachikuri 漂涼花 by H.E



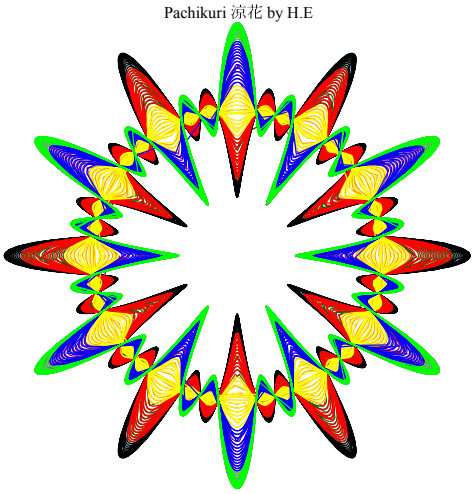
BGT = "10-16 (06:06:30 PM)", HIC = [143], $HHBB$ = [3, 5, 2, 16]

$X = 5\sin(141\,t)\cos(752\,t) + 3\sin(141\,t)\cos(1504\,t)\cos(t)$

$Y = 5\cos(141\,t)\cos(752\,t) + 3\cos(141\,t)\cos(1504\,t)\cos(t)$

$\left[t = 0..2\,\pi,\ st = \frac{1}{10}\right]$, *蛭子井博孝*

Pachikuri 涼花 by H.E



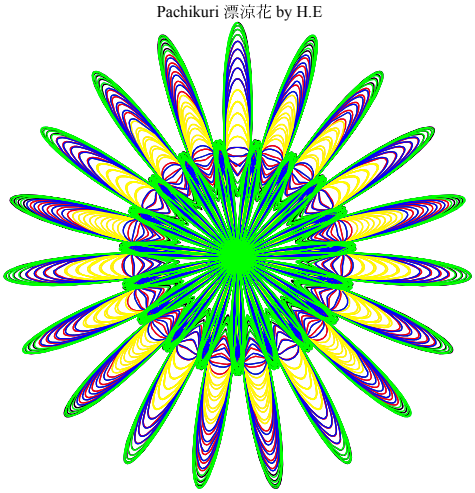
BGT = "10-16 (06:06:47 PM)", HIB = [150], $HHBB$ = [3, 5, 2, 18]

$X = 5\sin(141\,t) + 3\cos(846\,t)\sin(141\,t)\cos(1692\,t)\cos(t)$

$Y = 5\cos(141\,t) + 3\cos(846\,t)\cos(141\,t)\cos(1692\,t)\cos(t)$

$\left[t = 0..2\,\pi,\ st = \frac{1}{10}\right]$, *蛭子井博孝*

Pachikuri 漂涼花 by H.E



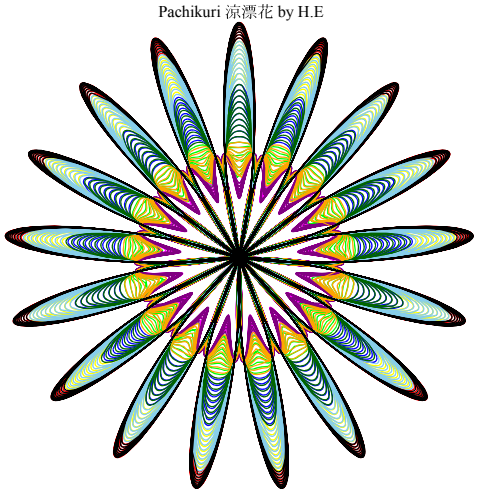
BGT = "10-16 (06:06:59 PM)", HIC = [155], $HHBB$ = [3, 5, 2, 19]

$X = 5\sin(141\,t)\cos(893\,t) + 3\sin(141\,t)\cos(1786\,t)\cos(t)$

$Y = 5\cos(141\,t)\cos(893\,t) + 3\cos(141\,t)\cos(1786\,t)\cos(t)$

$\left[t = 0..2\,\pi,\ st = \frac{1}{10}\right]$, *蛭子井博孝*

Pachikuri 涼漂花 by H.E



BGT = "10-16 (06:06:42 PM)", HID = [148], $HHBB$ = [3, 5, 2, 17]

$X = 5\sin(141\,t)\cos(799\,t) + 3\cos(799\,t)\sin(141\,t)\cos(1598\,t)\cos(t)$

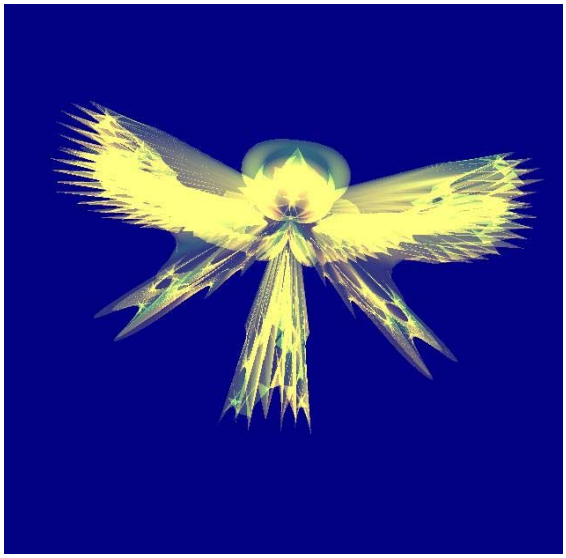
$Y = 5\cos(141\,t)\cos(799\,t) + 3\cos(799\,t)\cos(141\,t)\cos(1598\,t)\cos(t)$

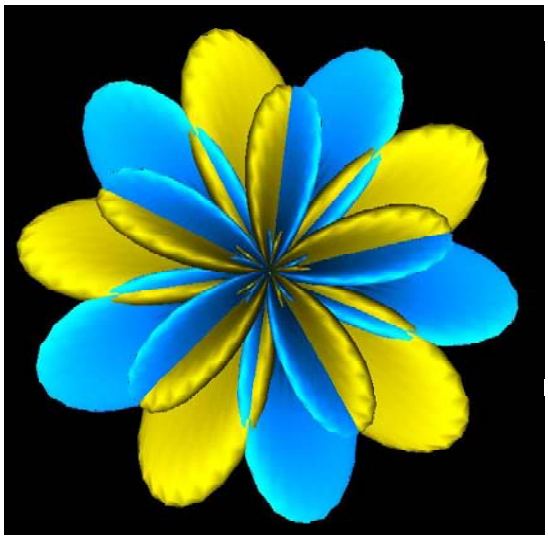
$\left[t = 0..2\,\pi,\ st = \frac{1}{10}\right]$, *蛭子井博孝*

Contents -4.-

4 3d CG by M.I

Star shining angel





In Italiano by Maria Intagliata

Pitagora di Samo (587 a. C)

La Pitonessa di Delfo aveva detto alla madre, incinta, di Pitagora:”Avrai un figlio che sarà utile a tutti gli uomini, in tutti i tempi”. E così è stato. Pitagora viaggiò molto per accrescere il suo sapere e si stabilì alla fine a Crotone, nella Magna Grecia. Nauseato dal mondo dissoluto che lo circondava, fondò qui una Scuola di Scienza e di vita, circondandosi di discepoli di ambo i sessi, che venivano istruiti nelle scienze. A sessanta anni sposò Teano, bellissima giovane discepola che amava il suo Maestro appassionatamente e che, insieme a lui, divenne abilissima ad insegnare nell’ Istituto. Pitagora era, però, uno scienziato, appassionato scrutatore della natura e fondatore del Naturalismo Italiano e genio tutelare del pensiero laico italiano. Precisò il rapporto fra la lunghezza, il diametro e la tensione delle corde sonore e la qualità dei suoni. Intuì per primo che la terra è sferica e che gira attorno al sole e che anche le stelle sono dei “soli” in movimento. Scoprì il suo famoso teorema sul triangolo rettangolo; calcolò la teoria degli isoperimetri, dimostrando non commensurabile il rapporto fra la diagonale e il lato del quadrato. Introdusse nell’ aritmetica il sistema decimale(10 era il numero perfetto) e nella musica, la quarta e la quinta. Il suo motto: ”tutto l’ universo è numero e armonia” oggi ha un reale riscontro nella presenza della matematica in ogni ramo della Scienza. Grazie, Pitagora!

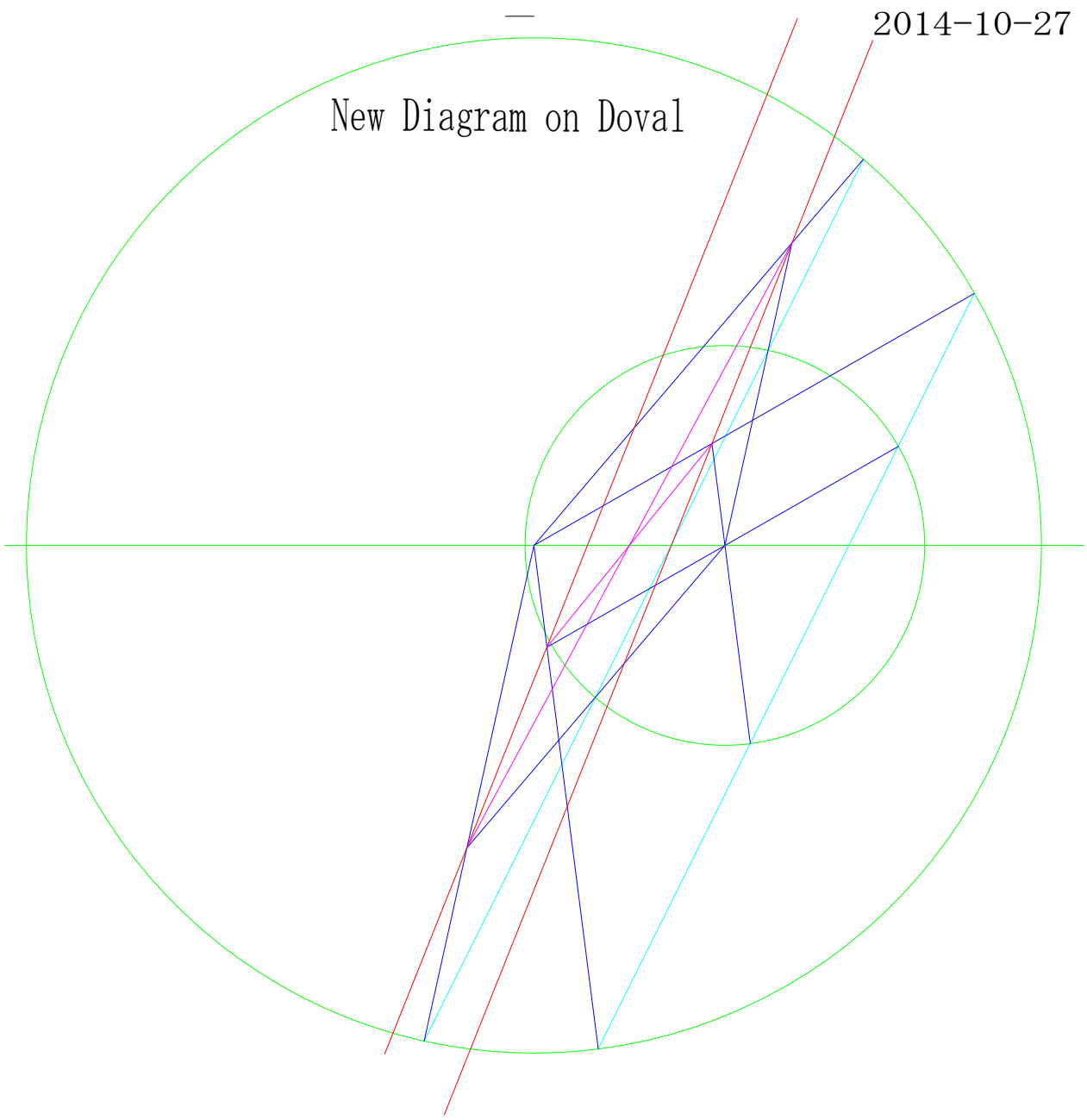
ピタゴラス by 蛭子井博孝

ピタゴラスって幸せだな.みんなに好かれ、教科書には、かれの定理が載っている.うらやましい。今日,また、ピタゴラスの周辺定理を見つけた.ありがとう。ピタゴラス。

Phytagorus is a happy man. Every one likes him.

TEXT book include His Theorem.I envy him.

Today I found new results surround Phytagorus theorem。Thank you.Phytagorus。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2014-10-27
New Diagram on Doval

2014-10-27