Tertiary Tree of Primitive Pythaorean Triples

Trunk		1st Tertiary Branch	2nd Tertiary Branches	3rd Tertiary Branches	4th Tertiary Branches	5th Tertiary Branches
PPT		PPT	PPT	PPT	PPT	PPT

Columns

Summary

$$U = s^2 + t^2 = cp \quad \text{and} \quad p = U/c = \text{*}f \cdot \Delta p/2 \quad \text{and} \quad \text{*}f = p + \Delta p/2$$

The *Uc=p* defines the **COMMON DIAGONAL** of the **GOLDEN TREE QUARE** to its **AXIS**.

Each **Tertiary Branch** cluster segment has the **SAME** *p*-value—AND—equals the previous *c*-value of the **Branch** from which it came. That *p*-value relates back to the previous, larger **Branch** from which it came by multiples of 4.
The *f*-value forms a definitive NPS as it runs through each **CLUSTER** within a *Tertiary/Tier* **Branch**.

Details

The **5 Columns** for each **Tertiary Tree Branch cluster** relate back to the **Branches/Tiers** from which they grew.
1. Because of the intimate relationship between *c* and *p* (as described above and previous **Tables 2o-s**), we can see detailed in the MIDDLE-MIDDLE **Branch CLUSTER**, that adding ½ the *Δp*-value to the *p*-value, gives the *f*-value of the **UPPER & LOWER PPTS** within any given **CLUSTER**.
2-5. Exactly the same, but notice that the MIDDLE-MIDDLE *f*-value of ANY CLUSTER is a CONSTANT from Branch/Tier to Branch/Tier. One can get the *f*-value from the MIDDLE of the CLUSTER in the Branch/Tier below from which it came.
Follow the White Dotted Lines to see the pattern.

Equations

The **5 Columns** for each **Tertiary Tree Branch cluster** relate back to the **Branches/Tiers** from which they grew.

1. $f = f$ previous   MIDDLE $f = \frac{1}{2}(f)$ UPPER & LOWER PPTS of that CLUSTER = 5+4/2=7

2. $\frac{1}{2} f = f$ previous   MIDDLE $f = p + \Delta p/2$ UPPER & LOWER PPTS of that CLUSTER = 13+8/2=17 & 11/120=23

3. $f = f$ previous   Ex: 17+17=17, 23+23=23, 41=41+47 $\frac{1}{2} f = p + \Delta p/2$ UPPER & LOWER PPTS of that CLUSTER = 25+12/2=31

4. $f = f$ previous   Ex: 31=31 ... , 103=103 ... , 73=73 ... , 113=113 ... etc.   MIDDLE $f = p + \Delta p/2$ UPPER & LOWER PPTS of that CLUSTER = 41+162=49

5. $f = f$ previous   Ex: 49=49 ... , 103=103 ... , 151=151 ... etc.   MIDDLE $f = p + \Delta p/2$ UPPER & LOWER PPTS of that CLUSTER = 61+12/2=73

Follow the White Dotted Lines to see the NPS pattern of the MIDDLE. See Table 2c for details.