Three Shape-Shifting Triangles

Here is an example of an image that involves multiple shape-shifting triangles at once. The image is best viewed using *Toggle Drawing*: https://www.playingwithpolygons.com?vertex=30&subdivisions=19&points=163&jumps=13

It is immediately clear that there are three triangular images involved and each changes its shape over the course of building the image. Instead of showing the image below, the vertex frame with subdivision points are shown together with the first 19-segment cycle. The cycle is shown in three parts: the first part is **7 green segments** followed by **7 red segments** followed up by **5 blue segments** ending at vertex **19**.

The triangles that are created vary over the course of the cycle but notice that all are scalene triangles EXCEPT the **red isosceles triangle** in the middle of the cycle. The base of that triangle is the 9th and 10th point of the cycle, the 9th point is the end of the 4th subdivision on the 11 to 24 vertex frame line and the 10th point is the end of the 15th subdivision 25 to 8 vertex frame line. Both points are at Level 4. This process continues in the 2nd cycle. That cycle ends at vertex **8** = MOD(2·19, 30) and Level 4 isosceles triangle base is the 4th point on the vertex frame line from **30&0** to **13** and 15th point on the vertex frame line from **14** and **27**.