Curved-tip Stars

Curved-tip stars are images that use the vertex frame to create curved angles at each point of the star. This is very much like having a classic <u>V-shaped image</u> at each point of the star. Such images are easy to create. All you need is P < S. The smaller is P relative to S (P/S is smaller), the smaller will be the curves at each vertex. Each of the first six images below has n = 11, S = 23 and J = 5. The top row from left to right has P = 8, 12, 14 and the bottom row has P = 16, 17, 18.



As **P** gets closer to **S**, each curve become harder to see, especially once P/S > 0.7 as there is no longer "white space" like in the final image above.

The bottom 3 images have the same *n*, *S*, and *P* as the upper left image but now we vary the size of *J*. As *J* changes from 4 to 3 to 2 and so does the value of *P* required to keep the internal intersections cleanly visible (you could check that the largest *P* where the first intersections occur as lines not curves is *P* = 6 for *J* = 4 and 3 but *P* = 7 for *J* = 2).



Curved-tip polygons are created if J = 1. In this instance, the inside image is most "circle-like" when P is close to half of S.