

### Spinning Triangles CQ

1. For any  $n$ ,  $S$ , and  $J$  that produces an image where  $J$  is not  $n/2$ , show that there is a value of  $P$  that produces either a triangle, or a one-time-around shape-shifting triangle as an image.
2. If the  $P$  value you found creates a counterclockwise fill in of spinning triangles, suggest a  $P$  that produces clockwise fill in of spinning triangles, and *vice versa*.
3. Describe the conditions under which the image is a triangle.

### Spinning Pentagons and Pentagrams CQ

1. For any  $n$ ,  $S$ , and  $J$  that produces an image where  $J$  is not  $n/2$ , show that there is a value of  $P$  that produces either a pentagon, pentagram, or a one-time-around shape-shifting 5-sided image.
2. If the  $P$  value you found creates a counterclockwise fill in of the shape-shifting 5-sided image, suggest a  $P$  that produces clockwise fill in of spinning triangles, and *vice versa*.
3. Describe the conditions under which the image is a 5-line figure.