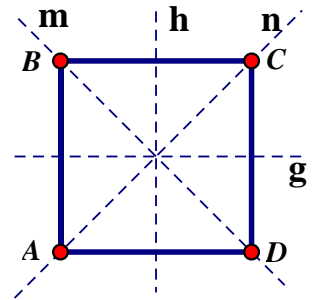


Assume all rotations are centered at the center of the polygon.

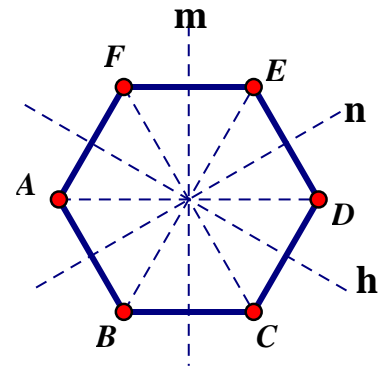
1. What is the minimum number of degrees to map a regular 16-gon onto itself?

2. Name the regular polygon that will map onto itself under a minimum rotation of 90° .

3. Given square ABCD, under a rotation of how many degrees will point C map to point D?



4. Given regular hexagon ABCDEF with lines m, n, and h through midpoints of the sides,
 - a. Determine the number of degrees to rotate the regular hexagon such that E maps to A.



- b. Identify three separate precise transformations that map F to C under a
 - i. Point Reflection: _____
 - ii. Rotation: _____
 - iii. Rotation: _____

 - c. Identify two separate precise transformations that map F to B under a
 - i. Line Reflection: _____
 - ii. Rotation: _____

5. A rotation of 180° will carry all the following regular polygons onto themselves except:
- a. Square
 - b. Octagon
 - c. Nonagon
 - d. Decagon

6. Which of the following angle measures would rotate a regular pentagon onto itself?
- a. 36°
 - b. 90°
 - c. 144°
 - d. 180°

