G.CO.A.3: Mapping a Polygon onto Itself 1
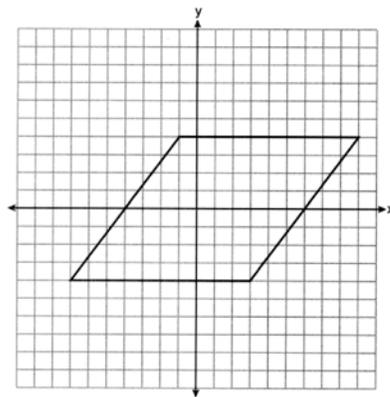
1   Which regular polygon would carry onto itself after a rotation of 60° about its center?
1) pentagon
2) hexagon
3) octagon
4) decagon

2   A regular octagon is rotated about its center. Which angle measure will carry the octagon onto itself?
1) 36°
2) 90°
3) 144°
4) 160°

3   A rhombus is graphed on the set of axes below.

Which transformation does *not* carry the rhombus onto itself?

1) a rotation of 180° about the origin

2) a rotation of 180° about point $(1,0)$

3) a reflection over the line $y = \frac{1}{2}x - \frac{1}{2}$

4) a reflection over the line $y = -2x + 2$

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Answer Section

1 ANS: 2

$$\frac{360}{6} = 60$$

REF: 012602geo

2 ANS: 2

$$\frac{360°}{8} = 45°\ \ 90°\text{ is a multiple of }45°$$

REF: 062505geo

3 ANS: 1   REF: 082522geo