Warm Up

Find the coordinates of the image of $A(-3, 8)$ for each transformation.

$(-3, 4)$

1.   reflection in the line $y = x$

$(-8, -3)$ $(8, -3)$
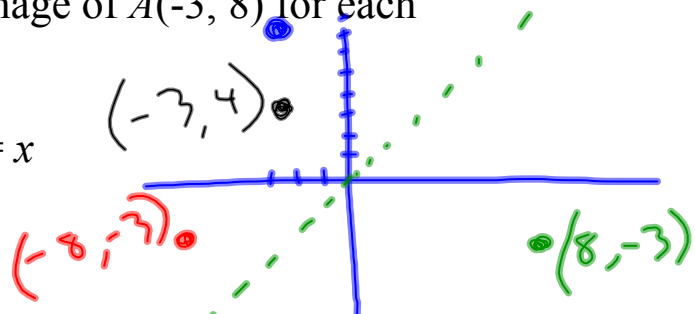
2.   rotation of $90°$ counterclockwise about the origin

3.   translation 4 units down

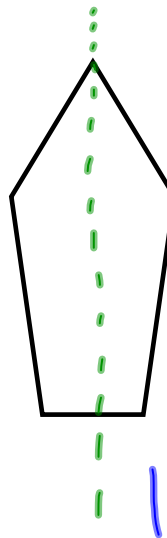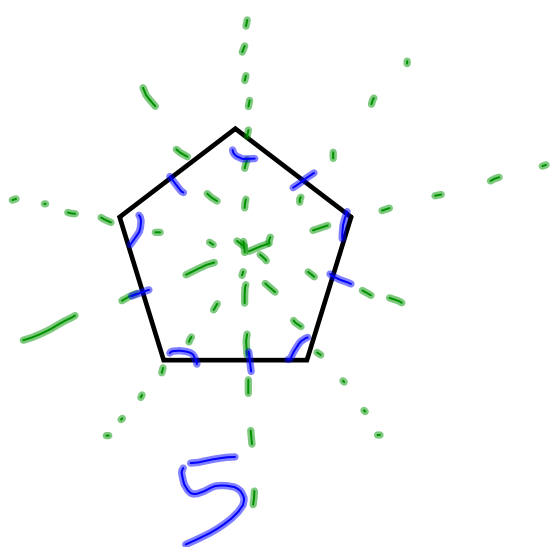# 9-6 Symmetry

line symmetry   — reflection
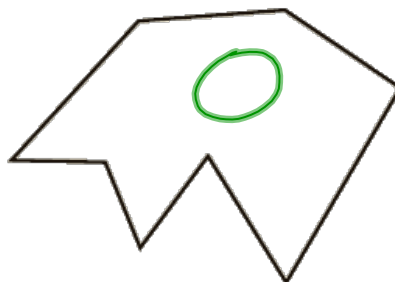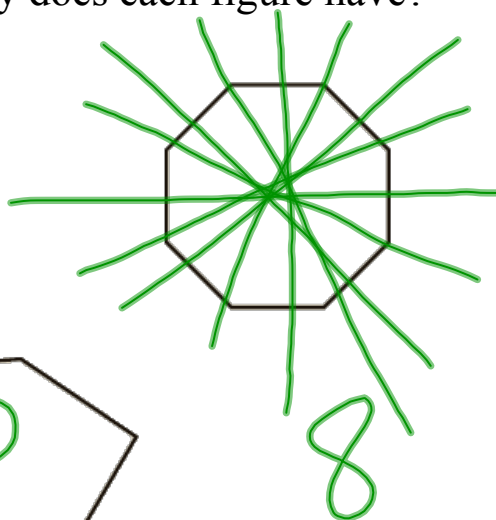
line of symmetry

rotational symmetry
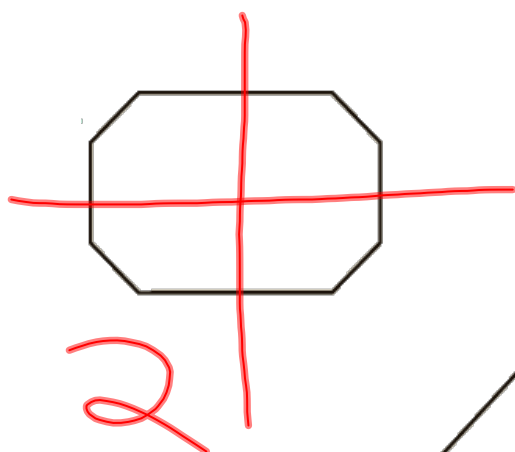
center of symmetry

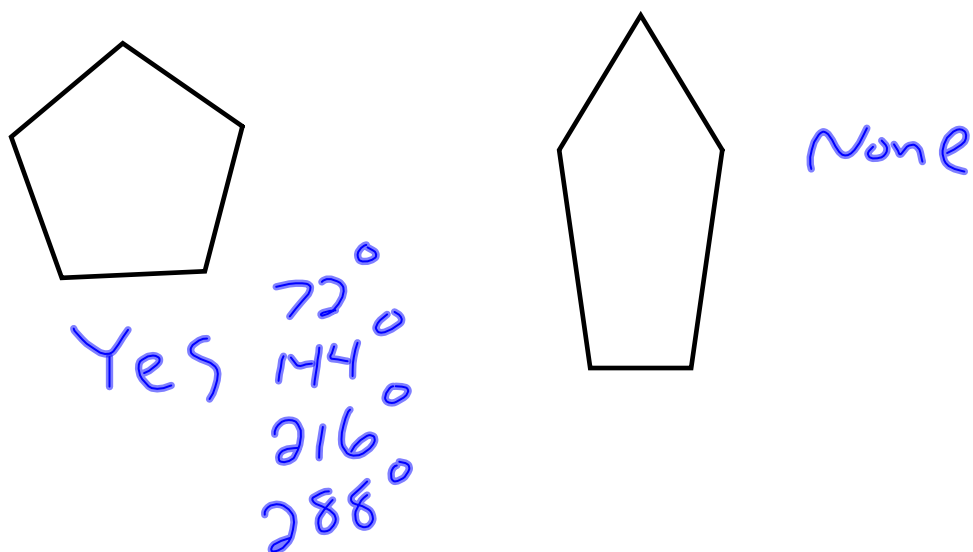Ex 1   How many lines of symmetry does each figure have?

5   1
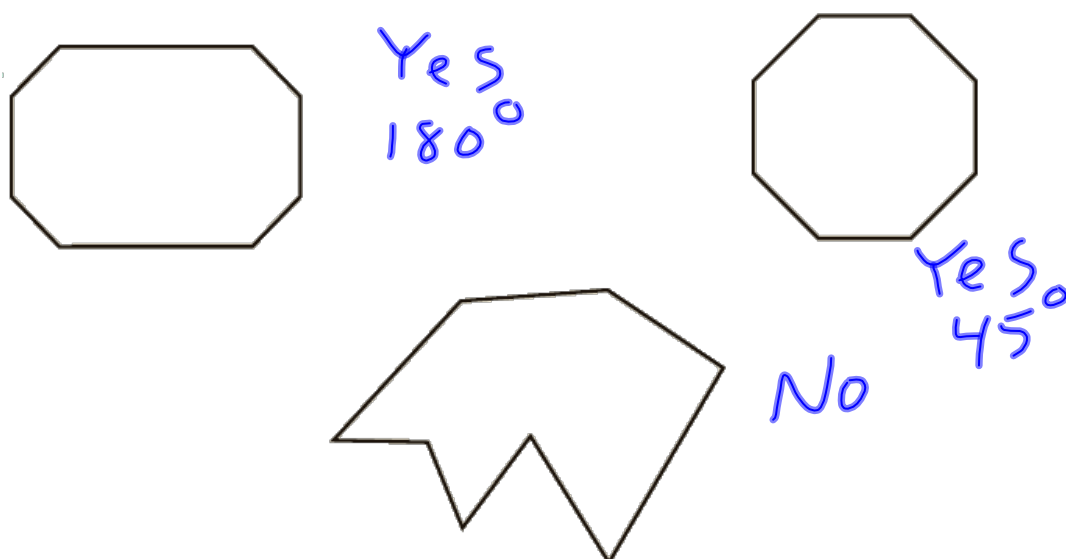
Ex 2   How many lines of symmetry does each figure have?

2   0   8

Ex 3   Does the figure have rotational symmetry? If so,
            describe the rotations that map the figure onto itself.

None

Yes   72°
      144°
      216°
      288°

Ex 4   Does the figure have rotational symmetry? If so,
            describe the rotations that map the figure onto itself.
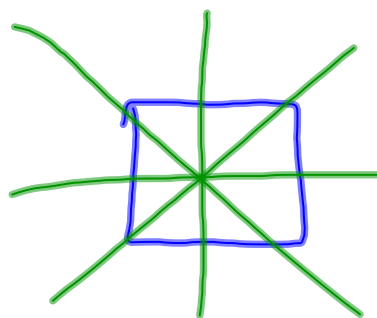
Yes
180°

Yes
45°

No

Ex. 5   Identify the line symmetry and rotational symmetry
of a square.

Line Symmetry —
4

Rotational Symmetry —
90°

line symmetry?   rotational symmetry?
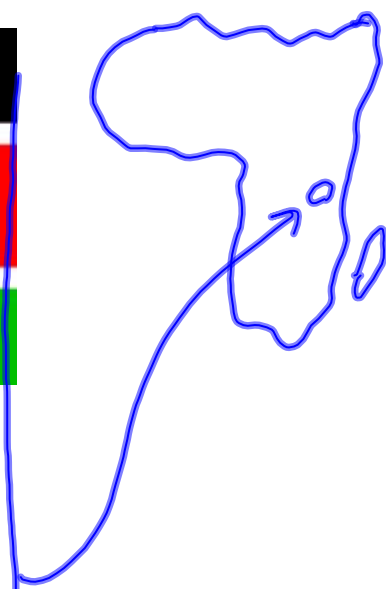
60°

6

line symmetry?   rotational symmetry?

1

Kenya's Flag

line symmetry?   rotational symmetry?

5   72°

line symmetry?   rotational symmetry?
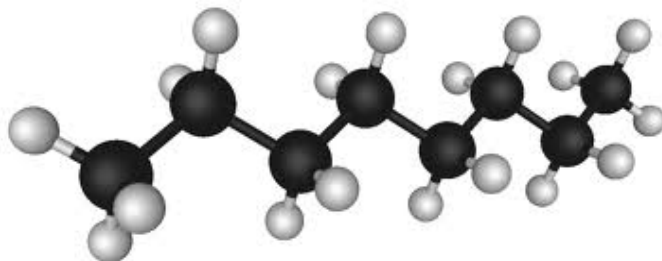
none   yes 60°

line symmetry?   rotational symmetry?

line symmetry?   rotational symmetry?

no   180°