

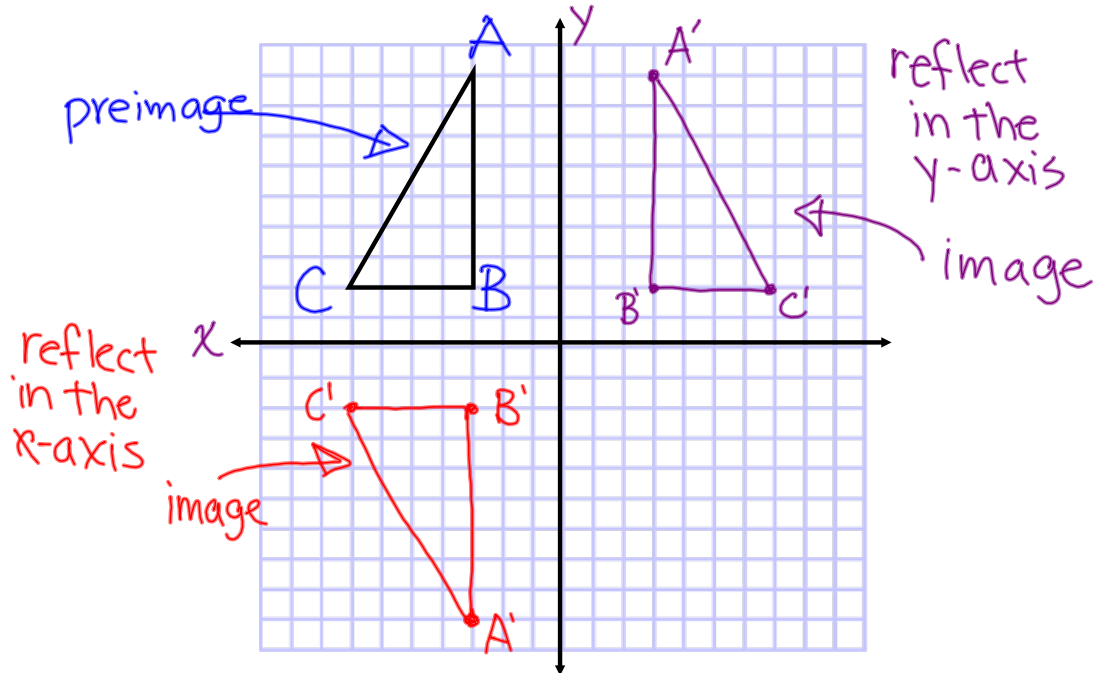
7th Grade Lesson 80

- I can draw a figure and its image after a reflection in a given line.
- I can draw a figure and its image after a translation.
- I can draw a figure and its image after a rotation.

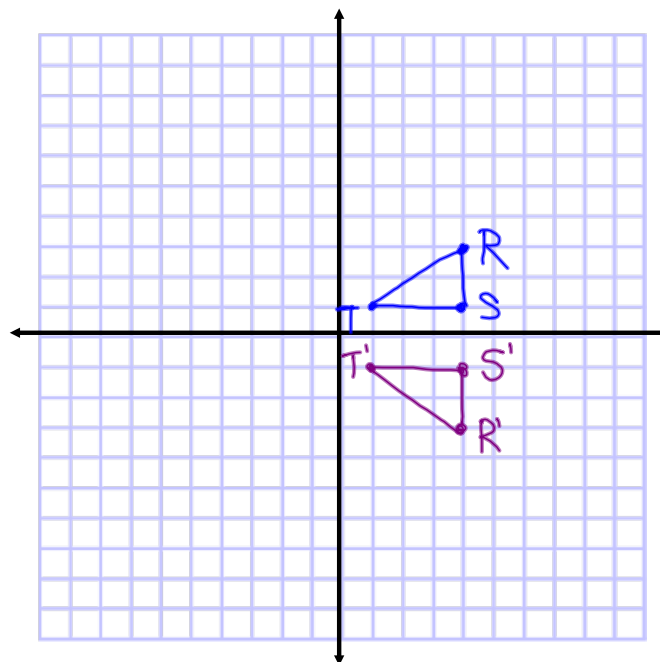
TRANSFORMATIONS

Movement	Name
flip	reflection
slide	translation
turn	rotation

A reflection of a figure in a line produces a mirror image of the figure that is reflected.



$\triangle RST$
 $R(4,3)$
 $S(4,1)$
 $T(1,1)$

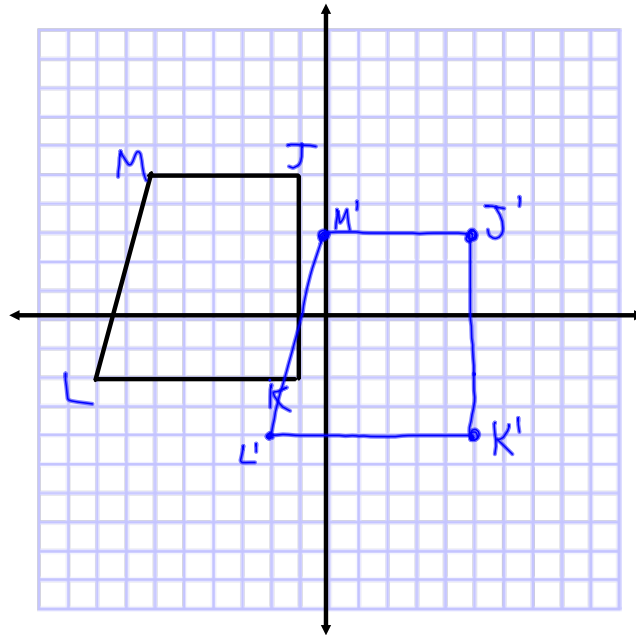


reflect in the x-axis
 $\triangle R'S'T'$
 $R'(4,-3)$
 $S'(4,-1)$
 $T'(1,-1)$

A translation "slides" a figure to a new position without turning or flipping the figure.

JKLM

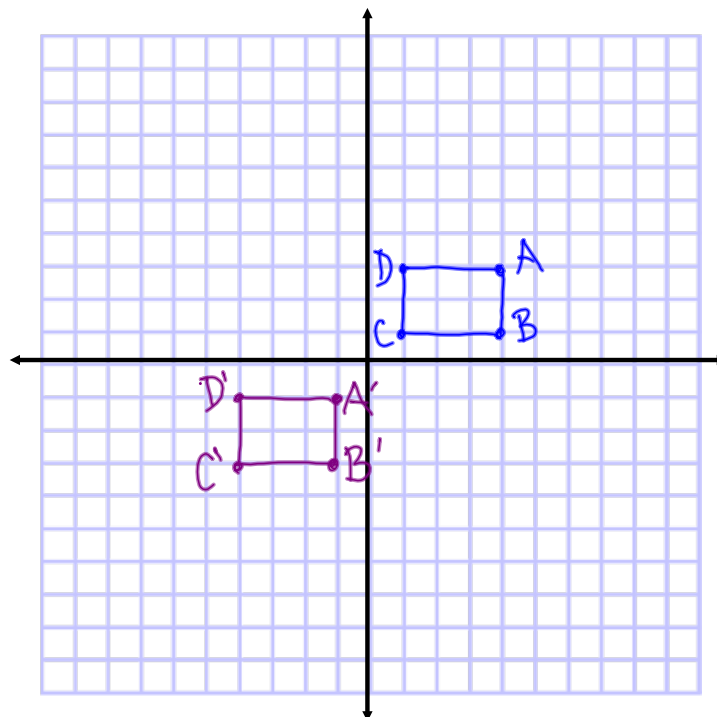
6 units
right
2 units
down



□ ABCD

A(4,3)
B(4,1)
C(1,1)
D(1,3)

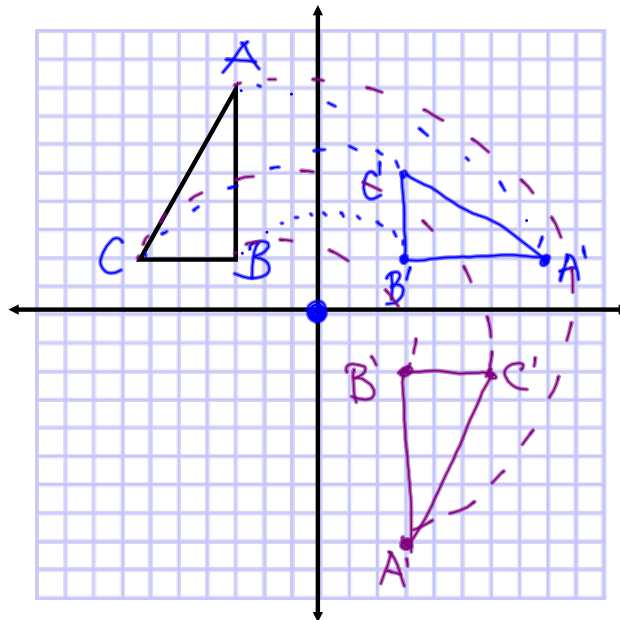
left
5 units
down
4 units



A'(-1,-1)
B'(-1,-3)
C'(-4,-3)
D'(-4,-1)

A rotation of a figure "turns" the figure about a specified point called the Center of rotation.

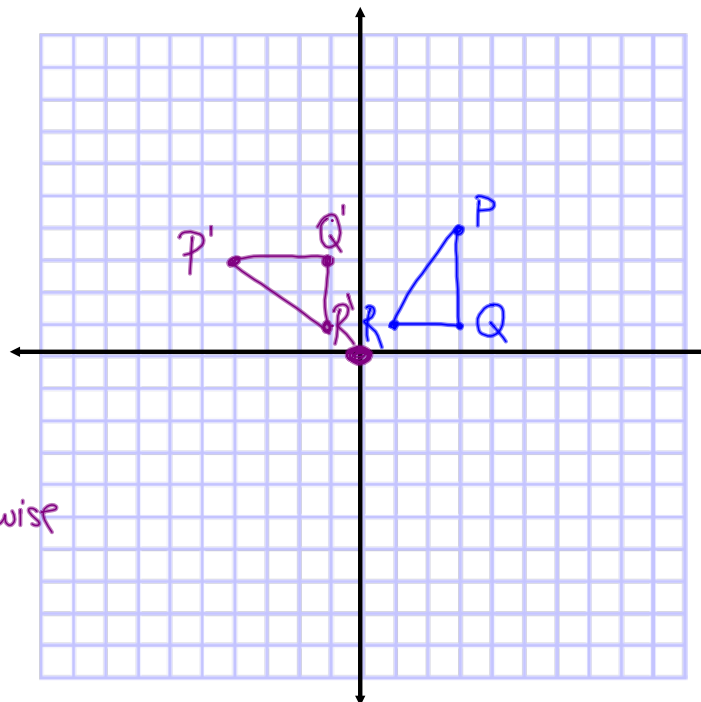
$\triangle ABC$
rotate
 90°
clockwise
about the
origin



rotate
 180°
about
the origin

$\triangle PQR$
 $P(3,4)$
 $Q(3,1)$
 $R(1,1)$

rotate
 90°
counterclockwise
about the
origin



$P'(-4,3)$
 $Q'(-1,3)$
 $R'(-1,1)$

Assignment

Problem Set 80 #4-14 even,
15, 17-19, 21-23, 30