Name: _____

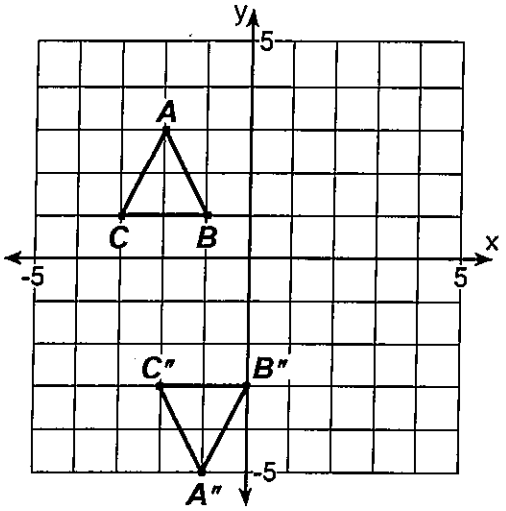
CC Geometry

Transformations Quiz Review

1) What is the image of (-3,6) when reflected in the x-axis?

A) (-3,6) C) (3,-6)
B) (-3,-6) D) (3,6)

2) Refer to the diagram below.



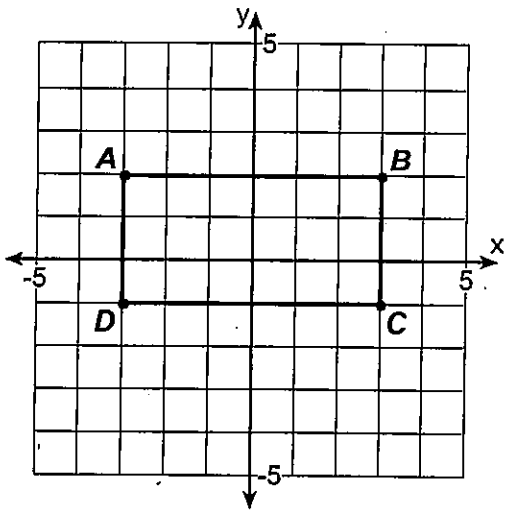
What two transformations took triangle ABC to triangle $A''B''C''$?

A) a reflection over the x-axis followed by a translation of (1,-2)
B) a translation of (1,-2) followed by a reflection over the x-axis
C) a rotation of 180° about the origin followed by a translation of (-2,-3)
D) a translation of (1,-3) followed by a rotation of 180° about point A

3) If the point (2,-5) is reflected in the line $y = x$, then the image is

A) (-2,5) C) (5,-2)
B) (-5,2) D) (-5,-2)

4) Rotate rectangle $ABCD$ 90° clockwise about the origin.



What are the coordinates of point B'?

A) (-1,-3) C) (2,-3)
B) (-3,-1) D) (-3,2)

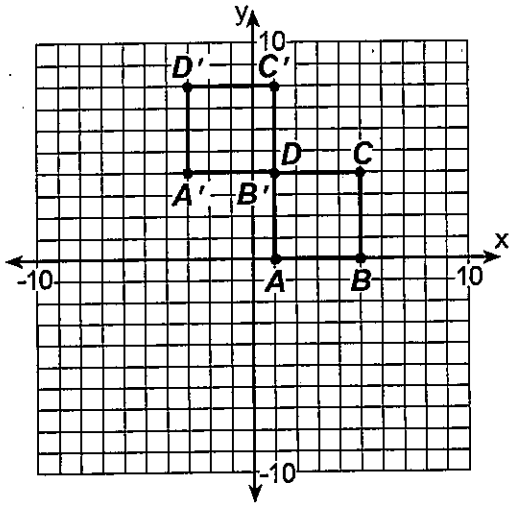
5) What is the image of A(3,4) under $R_{90°}$?

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

6) If the letter **P** is rotated 180 degrees, which of the following is the resulting figure?

A) **d** C) **b**
B) **q** D) **d**

7) What translation has taken square *ABCD* to square *A 'B 'C 'D '*?



A) $T_{(4,-4)}$
C) $T_{(4,4)}$
B) $T_{(-4,4)}$
D) $T_{(-4,-4)}$

8) Which of the following is the best description of a dilation of a figure?

A) an enlargement or a reduction of the figure
B) a turning of the figure about some fixed point
C) a mirror image of the figure
D) a slide of the figure

9) What is the proper notation for a translation that moves an object 4 units right and 5 units down?

A) $T_{(5,-4)}$
C) $T_{(4,-5)}$
B) $T_{(-4,-5)}$
D) $T_{(-5,-4)}$

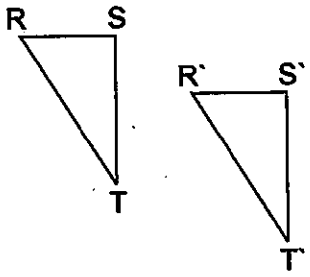
10) If translation *T* maps point A(-3,1) onto point A ' (5,5), what is the translation *T*?

A) $T_{2,4}$
C) $T_{8,6}$
B) $T_{2,6}$
D) $T_{8,4}$

11) A translation moves A(2,3) onto A ' (4,8). What are the coordinates of B ' , the image of B(4,6) under the same translation?

A) (8,12)
C) (6,8)
B) (12,18)
D) (6,11)

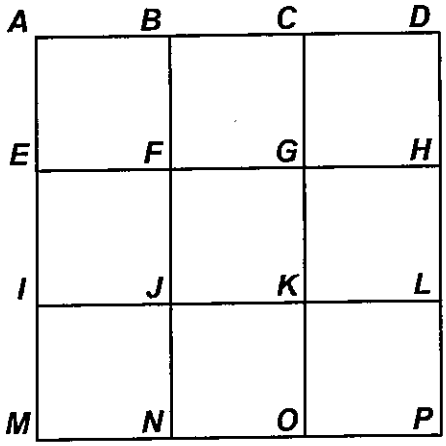
12) In the accompanying diagram, $\triangle R'S'T'$ is the image of $\triangle RST$.



Which type of transformation is shown in this diagram?

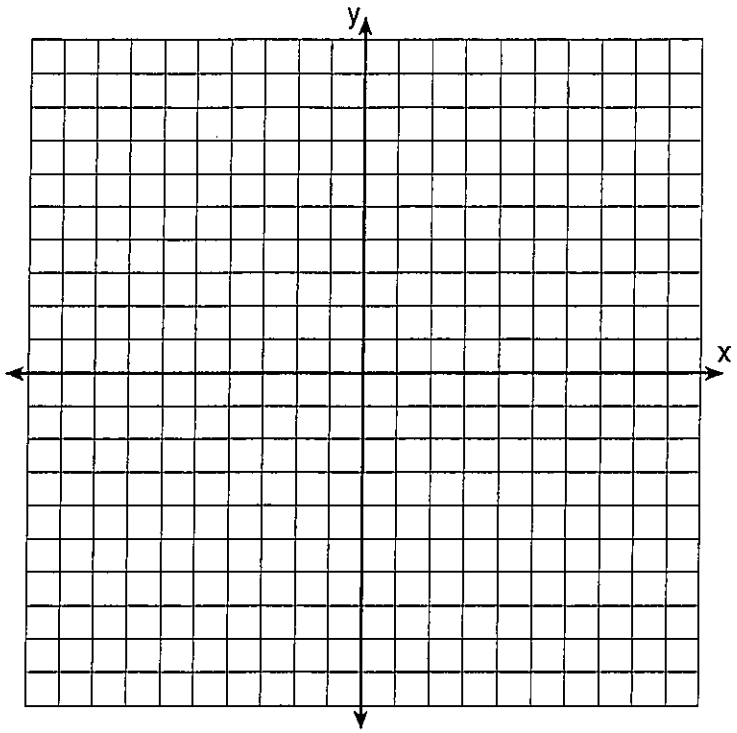
A) rotation
C) translation
B) reflection
D) dilation

13) A certain translation has taken point *A* to point *G*. Where would this same translation take point *J*?

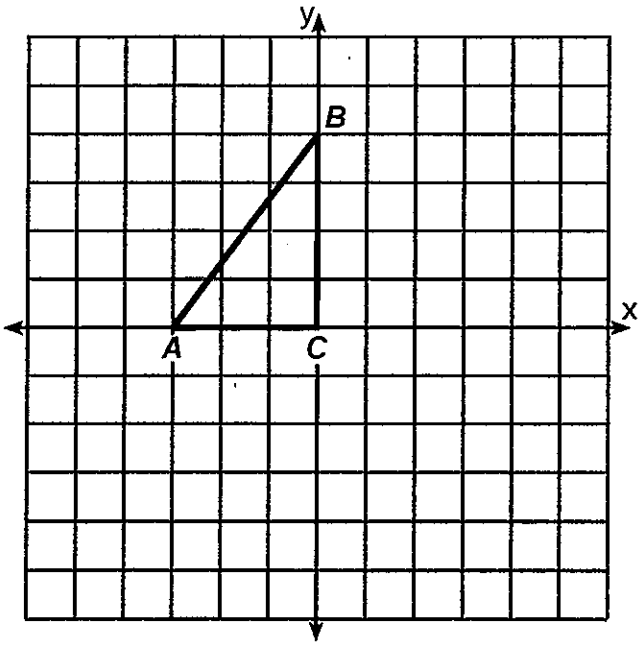


A) *N*
C) *L*
B) *P*
D) *O*

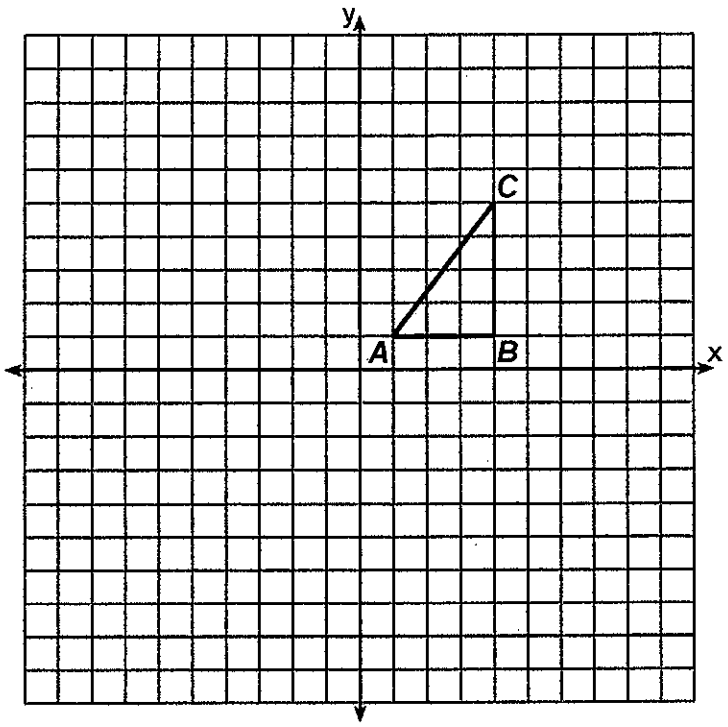
14) Given triangle ABC with coordinates A(-1,-2), B(0,-4), and C(3,-1). Graph and label $\triangle A'B'C'$, the image of $\triangle ABC$ after translation $T_{4,-3}$.



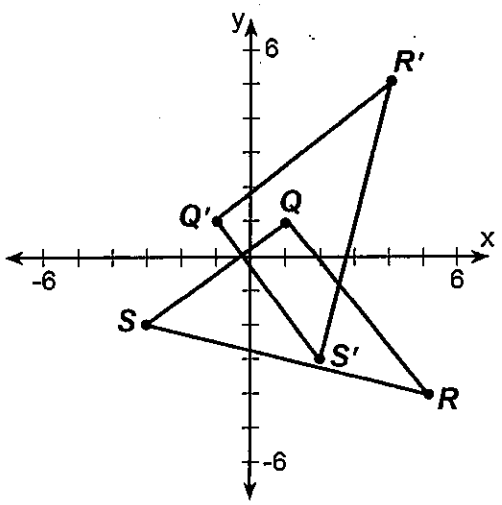
15) Triangle ABC is graphed on the set of axes below. Graph and label $\triangle A'B'C'$, the image of $\triangle ABC$ after a reflection over the line $x = 1$.



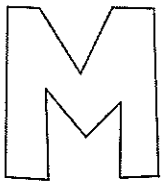
16) In the diagram below, $\triangle ABC$ has coordinates $A(1,1)$, $B(4,1)$, and $C(4,5)$. Graph and label $\triangle A''B''C''$, the image of $\triangle ABC$ after the translation five units to the right and two units up followed by the reflection over the line $y = 0$.

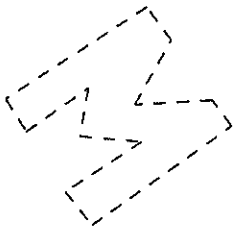


17) In the accompanying diagram, what rotation of $\triangle QRS$ is illustrated?

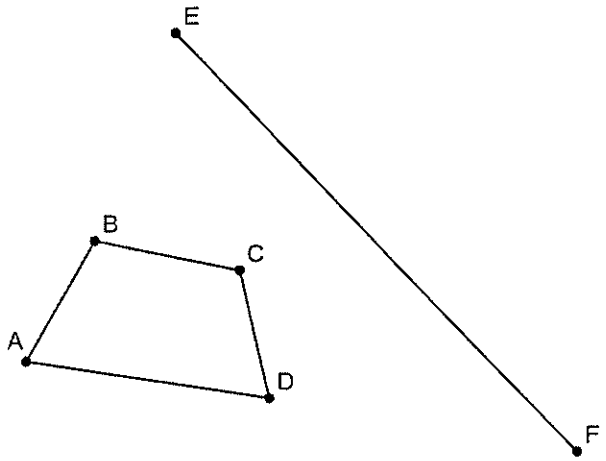


18) Construct the line of reflection across which the each image below was reflected.

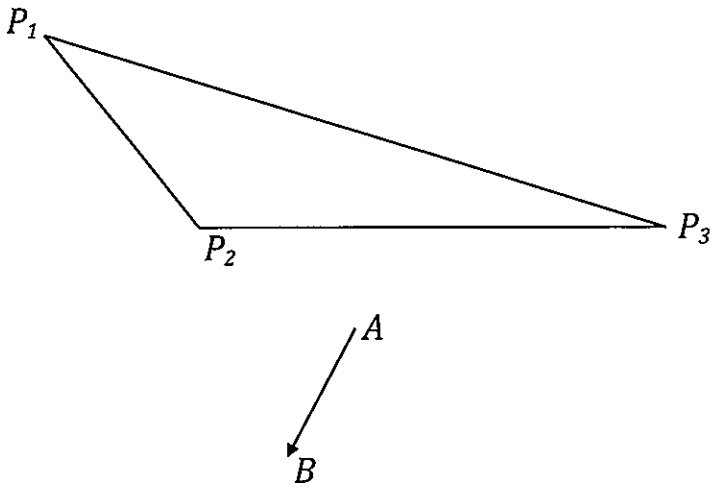




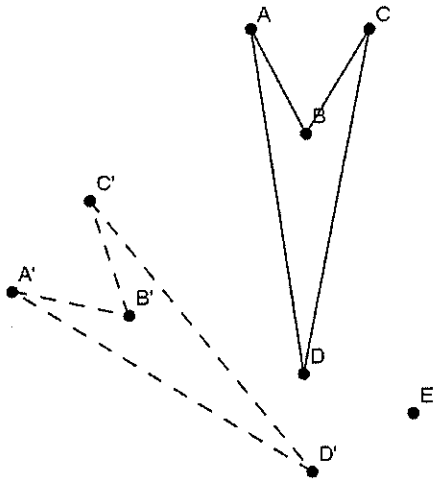
19) Reflect the quadrilateral over the line segment EF.



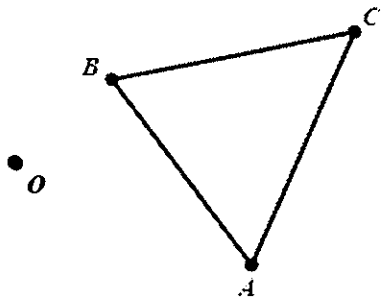
20) Use your compass and straightedge to apply $T_{\overrightarrow{AB}}$ to $\triangle P_1P_2P_3$.



21) Label angle θ and state the direction of the rotation below



22) Use a compass and straight edge to construct $R_{O,180^\circ}(\Delta ABC)$

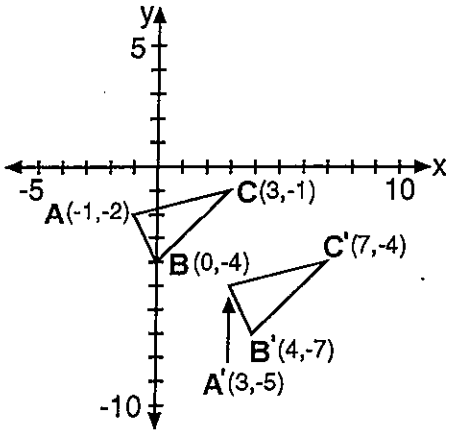


1) B 2) A 3) B 4) C 5) C

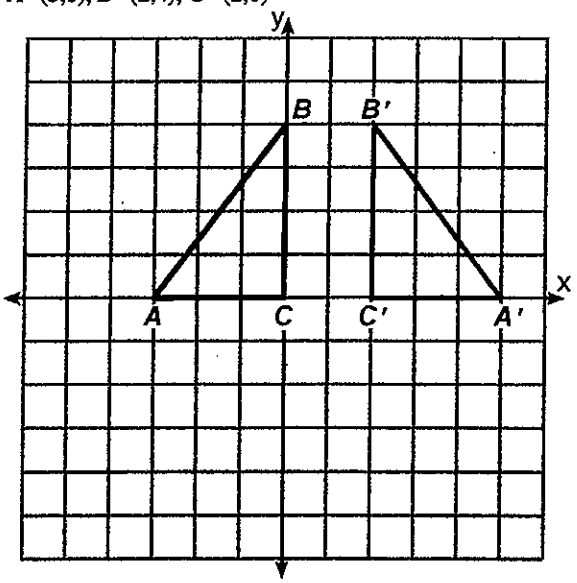
6) D 7) B 8) A 9) C 10) D

11) D 12) C 13) B

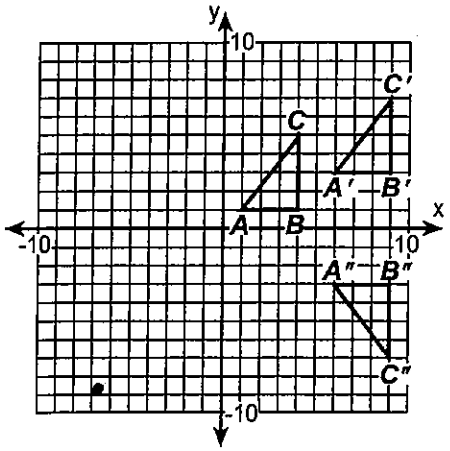
14)



15) $A'(5,0), B'(2,4), C'(2,0)$



16)



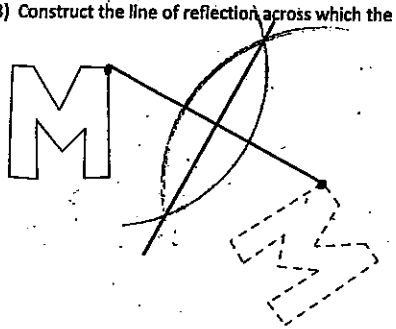
$A''(6,-3)$

$B''(9,-3)$

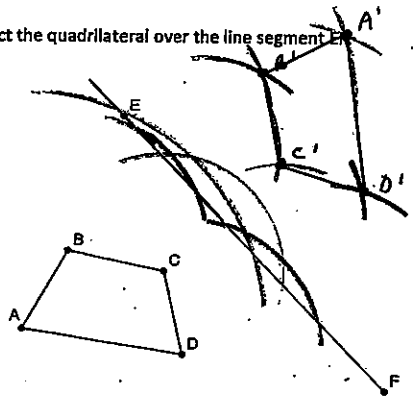
$C''(9,-7)$

17) 90° *ccw* about the origin

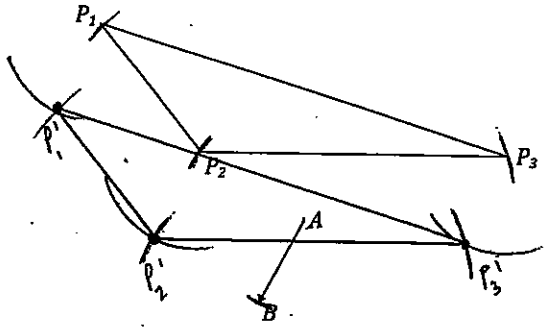
18) Construct the line of reflection across which the each image below was reflected.



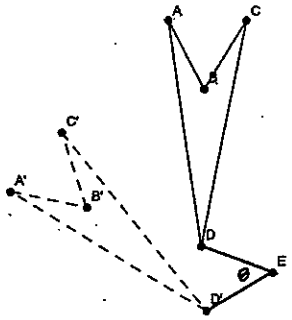
19) Reflect the quadrilateral over the line segment $\overline{EF}$



20) Use your compass and straightedge to apply $T_{\overline{AB}}$ to $\triangle P_1P_2P_3$.



21) Label angle θ and state the direction of the rotation below



counterclockwise

$R_{E,\theta}$

22) Use a compass and straight edge to construct $R_{O,180°}(\Delta ABC)$