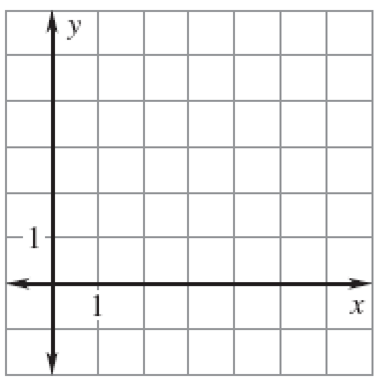
Worksheet 9.5 Composite Transformations Prep

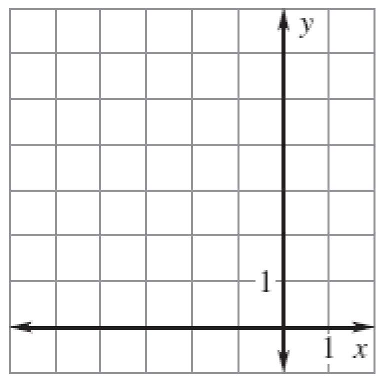
Name ______________________

Graph the image of $A(1,-3)$ after the described glide reflection.

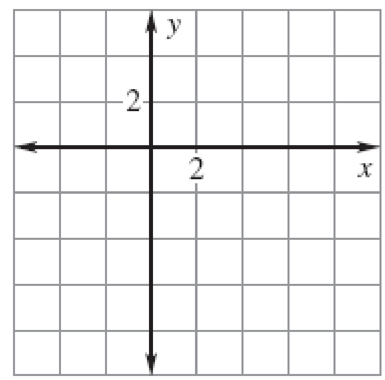
1) Translation: $(x,y)\rightarrow(x+2,y)$
Reflection: in the x-axis



2) Translation: $(x,y)\rightarrow(x-4,y+3)$
Reflection: in $y=2$

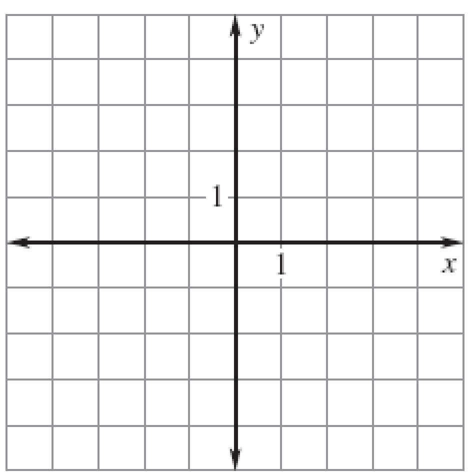


3) Translation: $(x,y)\rightarrow(x-3,y+2)$
Reflection: in $x=2$

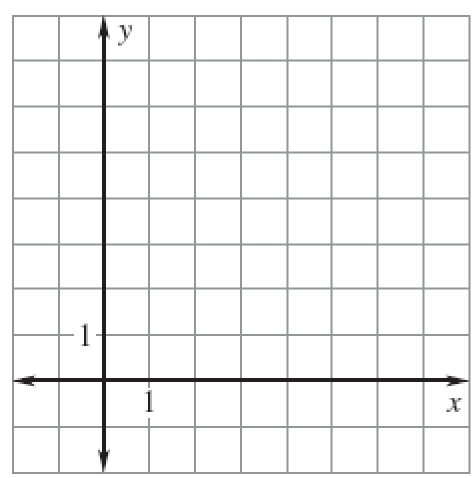


The endpoints of $\overline{CD}$ are $C(1,2)$ and $D(5,4)$. Graph the image of $\overline{CD}$ after the glide reflection.

4) Translation: $(x,y)\rightarrow(x-4,y)$
Reflection: in x-axis

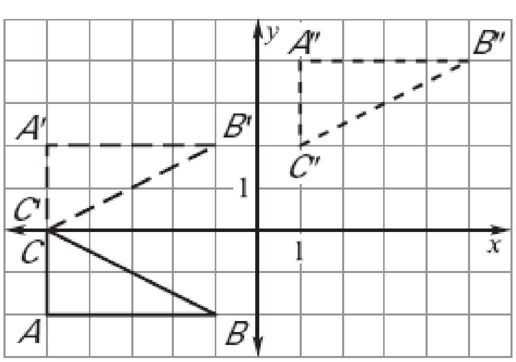


5) Translation: $(x,y)\rightarrow(x,y+2)$
Reflection: in $y=x$

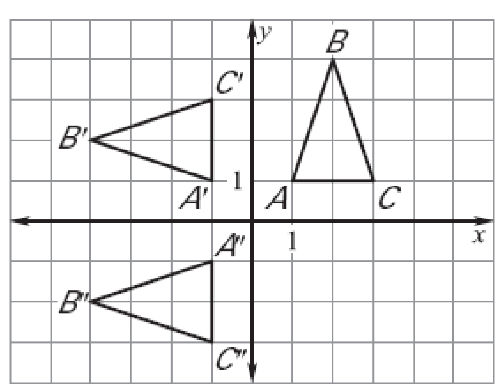


Describe the composition of the transformations.

6)

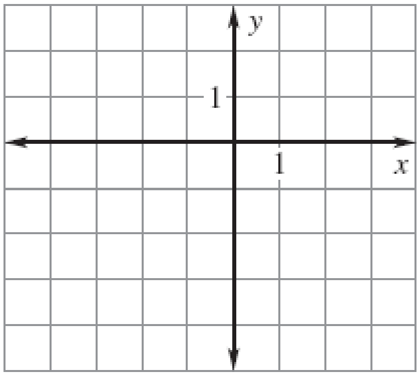


7)

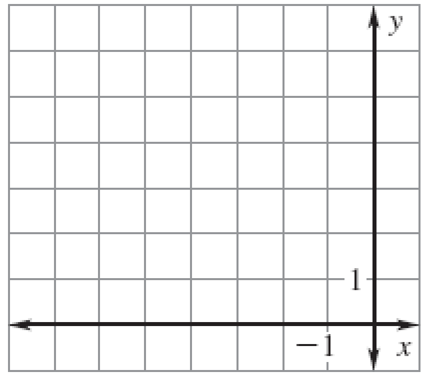


The vertices of ΔABC are $A(2,4)$, $B(7,6)$, and $C(5,2)$. Graph the image of ΔABC after a composition of the transformations in the order they are listed.

8) Translation: $(x, y) \rightarrow (x-4, y-3)$
Reflection: in the x-axis

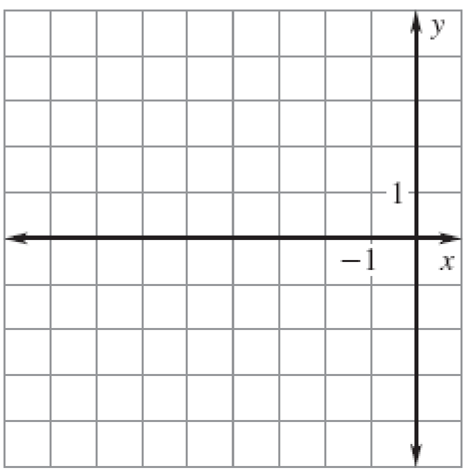


9) Translation: $(x, y) \rightarrow (x-2, y)$
Rotation: 90° about the origin

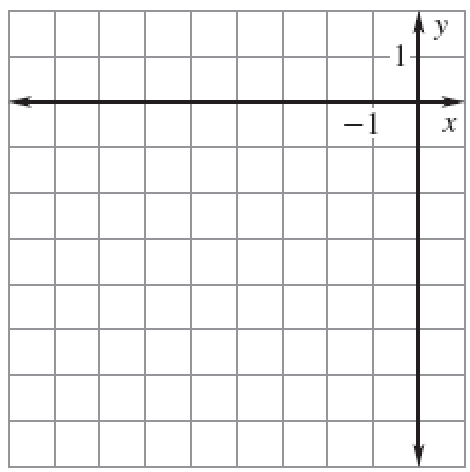


The vertices of ΔABC are $A(3,1)$, $B(1,5)$, and $C(5,3)$. Graph the image of ΔABC after a composition of the transformations in the order they are listed.

10) Translation: $(x, y) \rightarrow (x+3, y-5)$
Reflection: in the y-axis

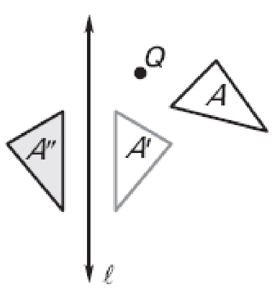


11) Translation: $(x, y) \rightarrow (x-6, y+1)$
Rotation: 90° about the origin

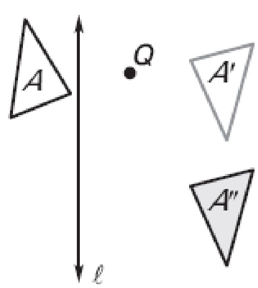


Match the composition with the diagram.

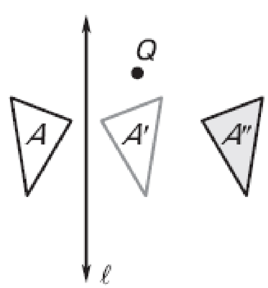
A.



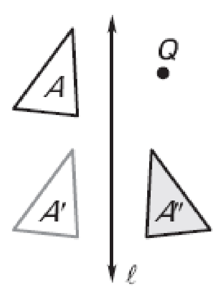
B.



C.



D.



12) Translate parallel to ℓ then reflect in ℓ.

13) Rotate about Q, then translate parallel to ℓ.

14) Rotate about Q, then reflect in ℓ.

15) Reflect in ℓ, then translate perpendicular to ℓ.