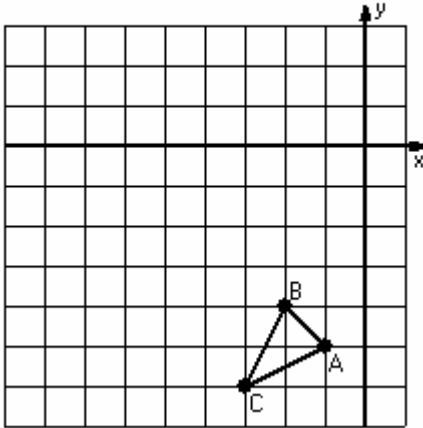


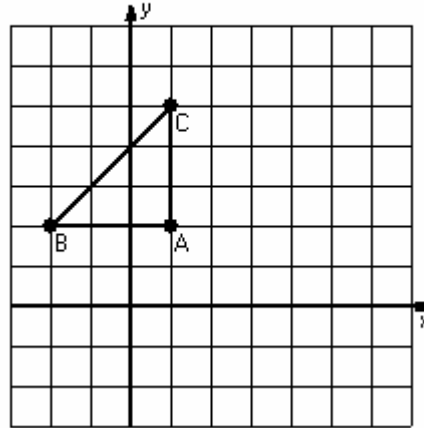
## Three-Step Transformations (A)

Instructions: Transform each triangle three times using the instructions in the order given.  
Draw and label each transformation.

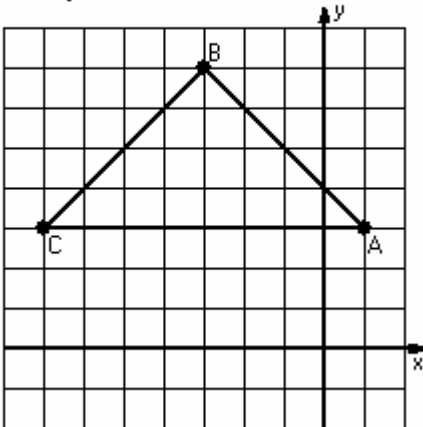
- 1) Translation (1,4)  
Reflection  $y = -3$   
Rotation  $180^\circ$ , center  $R(-3,-2)$



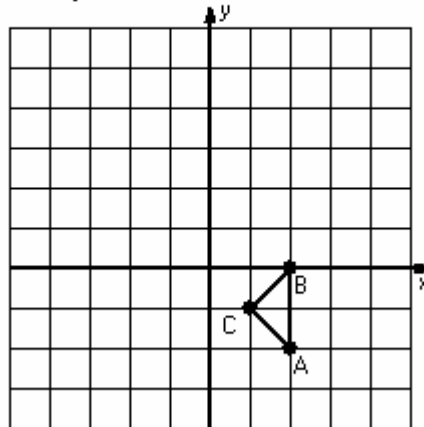
- 2) Dilation scale =  $1/3$ , center  $D(4,2)$   
Reflection  $x = 1$   
Translation (3,-2)



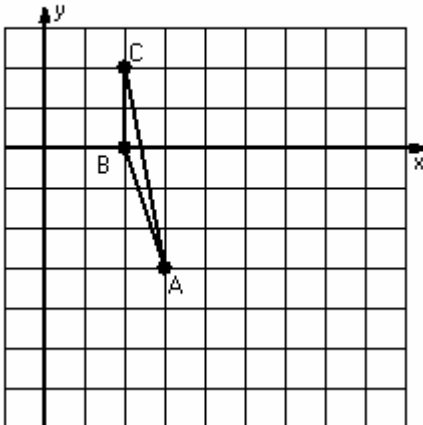
- 3) Dilation scale =  $1/4$ , center  $D(-3,3)$   
Translation (-3,-2)  
Reflection  $y = 3$



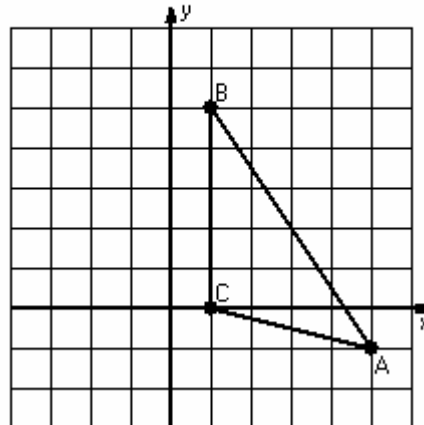
- 4) Translation (-2,3)  
Rotation  $90^\circ$  counterclockwise, center  $R(2,0)$   
Reflection  $y = 0$



- 5) Translation (1,0)  
Rotation  $180^\circ$ , center  $R(2,-1)$   
Reflection  $x = 4$



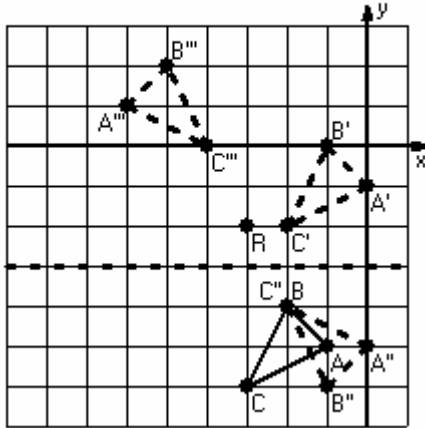
- 6) Rotation  $90^\circ$  counterclockwise, center  $R(3,0)$   
Translation (-1,4)  
Reflection  $x = 1$



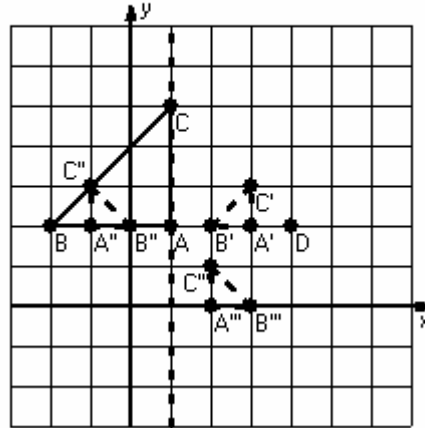
## Three-Step Transformations Answer (A)

Instructions: Transform each triangle three times using the instructions in the order given.  
Draw and label each transformation.

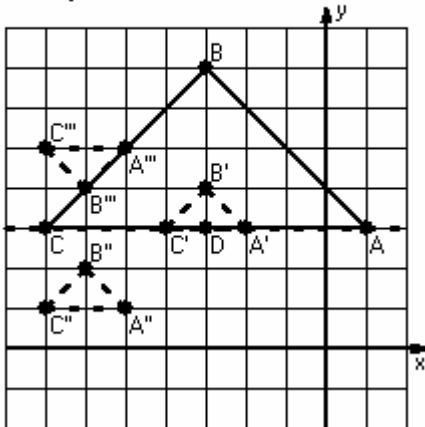
- 1) Translation (1,4)  
Reflection  $y = -3$   
Rotation  $180^\circ$ , center  $R(-3,-2)$



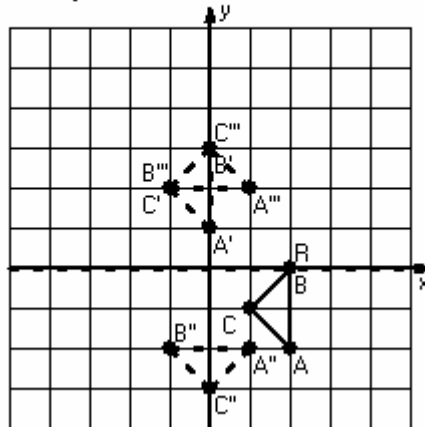
- 2) Dilation scale =  $1/3$ , center  $D(4,2)$   
Reflection  $x = 1$   
Translation (3,-2)



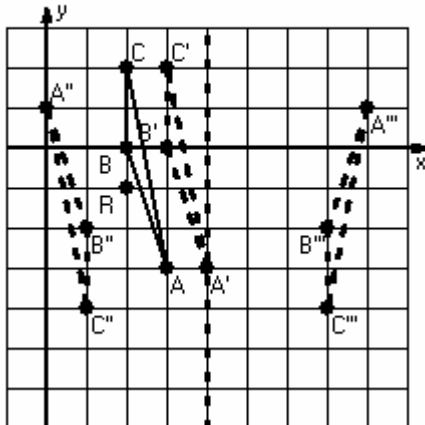
- 3) Dilation scale =  $1/4$ , center  $D(-3,3)$   
Translation (-3,-2)  
Reflection  $y = 3$



- 4) Translation (-2,3)  
Rotation  $90^\circ$  counterclockwise, center  $R(2,0)$   
Reflection  $y = 0$



- 5) Translation (1,0)  
Rotation  $180^\circ$ , center  $R(2,-1)$   
Reflection  $x = 4$



- 6) Rotation  $90^\circ$  counterclockwise, center  $R(3,0)$   
Translation (-1,4)  
Reflection  $x = 1$

