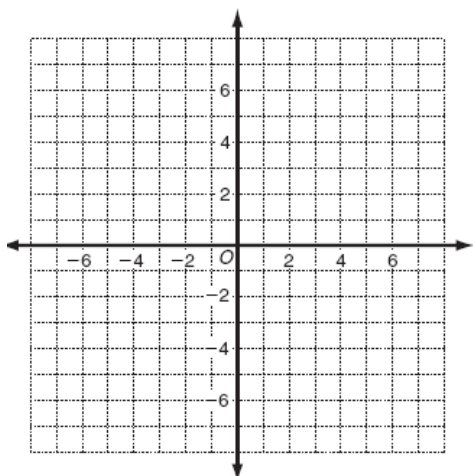


**Graph the given line. Then transform it as described. Write the equation of the transformed line in slope-intercept form.**

1. Graph line  $k$ :  $y = \frac{3}{4}x - 2$ .

Reflect line  $k$  across the  $x$ -axis.  
Label the reflected line  $m$ .

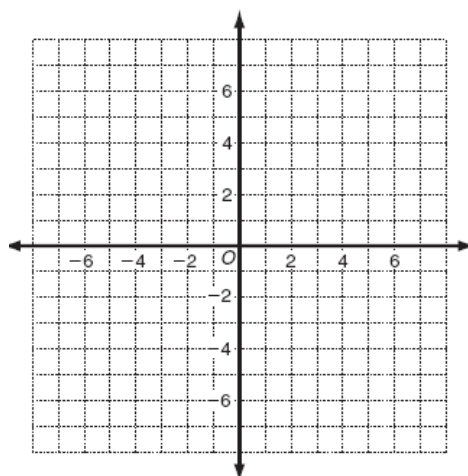
Equation of line  $m$  \_\_\_\_\_



2. Graph line  $k$ :  $4x + y = 5$

Reflect line  $k$  across the  $y$ -axis.  
Label the reflected line  $m$ .

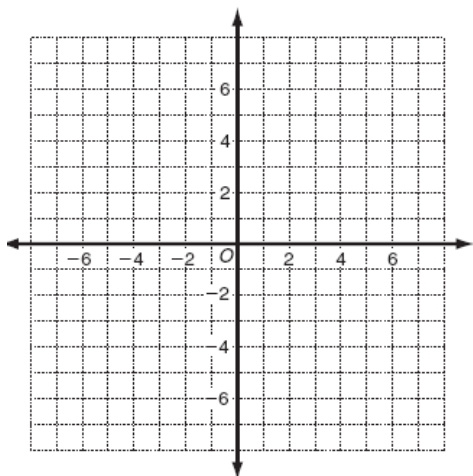
Equation of line  $m$  \_\_\_\_\_



3. Graph line  $k$ :  $2x + y = 3$ .

Translate line  $k$  along the vector  $\langle 3, -4 \rangle$ .  
Label the translated line  $m$ .

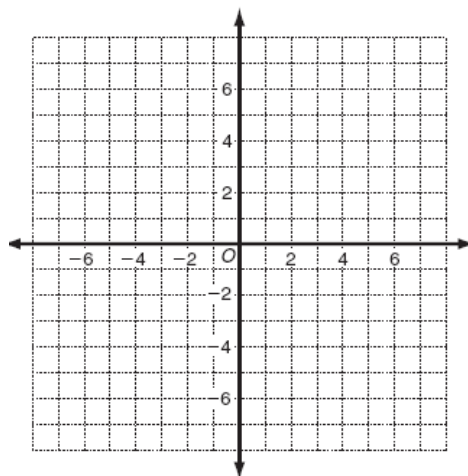
Equation of line  $m$  \_\_\_\_\_



4. Graph line  $k$ :  $y = \frac{1}{2}x - 3$ .

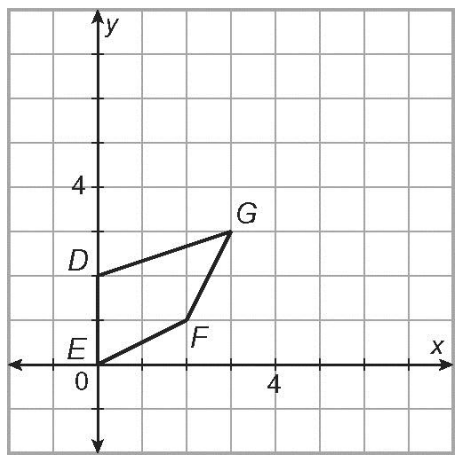
Translate line  $k$  along the vector  $\langle 4, 3 \rangle$ .  
Label the translated line  $m$ .

Equation of line  $m$  \_\_\_\_\_

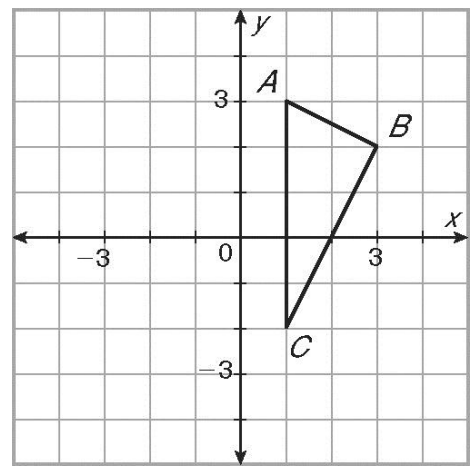


Draw the image of the figure with the given vertices under a dilation with the given scale factor centered at the origin.

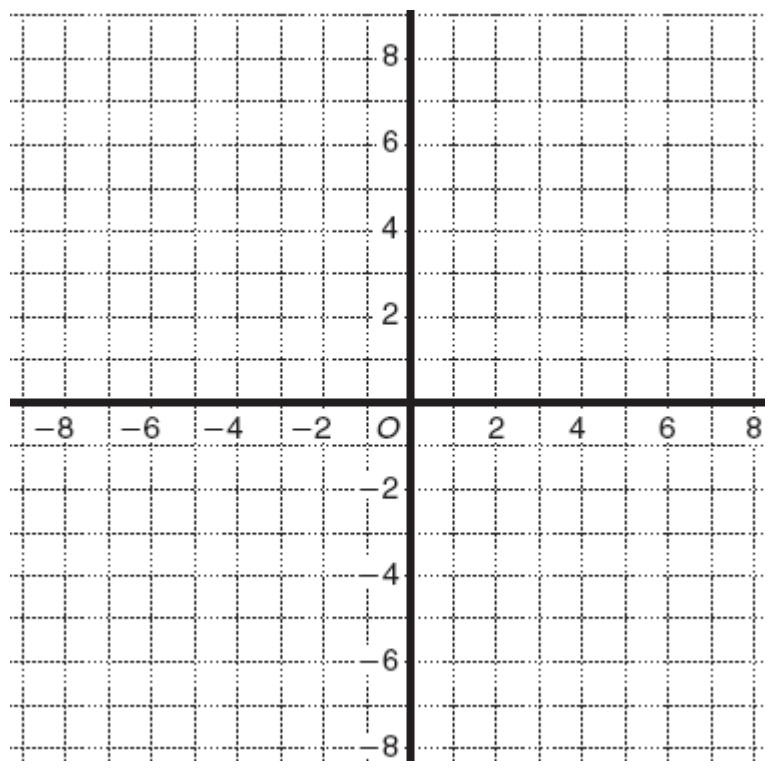
5.  $D(0, 2), E(0, 0), F(2, 1), G(3, 3)$ ;  
scale factor: 2



6.  $A(1, 3), B(3, 2), C(1, -2)$ ; scale factor:  $-\frac{1}{2}$



Graph point  $P(4, -3)$ . Find the coordinates of  $P'$  after each transformation or composition of transformations. Use the graph grid as needed.



- 7. rotation of  $90^\circ$  \_\_\_\_\_
- 8. reflection across the line  $y = x$  \_\_\_\_\_
- 9. reflection across the line  $y = -1$  \_\_\_\_\_
- 10. rotation of  $180^\circ$  followed by a reflection across the x-axis \_\_\_\_\_
- 11. translation along the vector  $\langle -8, 7 \rangle$  followed by a reflection across the y-axis \_\_\_\_\_