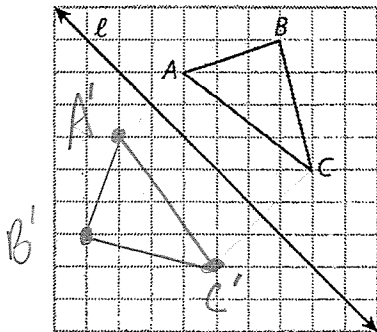


Also read pp 77-82

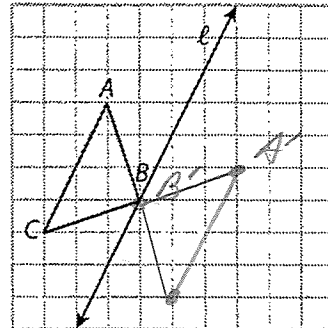
Homework

Draw the image of $\triangle ABC$ after reflection across line l .

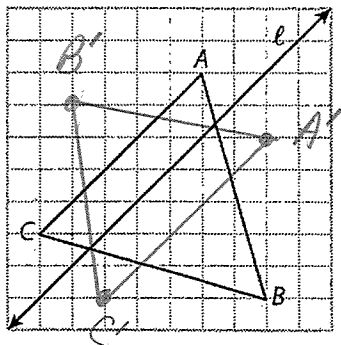
5



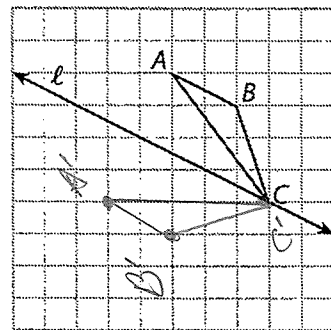
6.



7..



8.



For each problem below, do on graph paper. Write a rule for the transformation.

9. $P(-2, 3), Q(4, 3), R(-1, 0), S(-4, 1)$; x -axis

10. $A(-3, -3), B(1, 3), C(3, -1)$; y -axis

11. $J(-1, 2), K(2, 4), L(4, -1)$; $y = -x$

12. $D(-1, 1), E(3, 2), F(4, -1), G(-1, -3)$; $y = x$

⑨ $(x, y) \rightarrow (x, -y)$

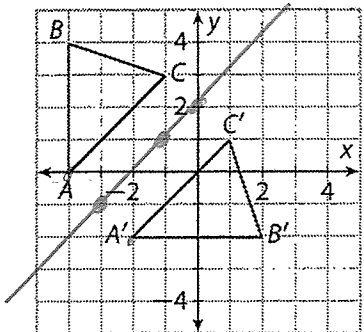
⑩ $(x, y) \rightarrow (-x, y)$

⑪ $(x, y) \rightarrow (-y, -x)$

⑫ $(x, y) \rightarrow (y, x)$

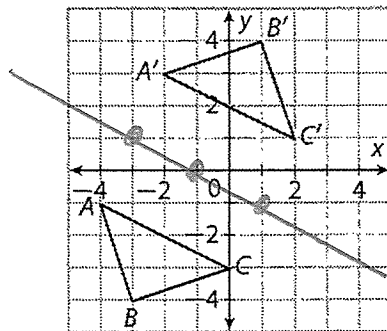
Given that $\Delta A'B'C'$ is the image of ΔABC under a reflection, draw the line of reflection. Be sure to show work for the midpoints.

13.



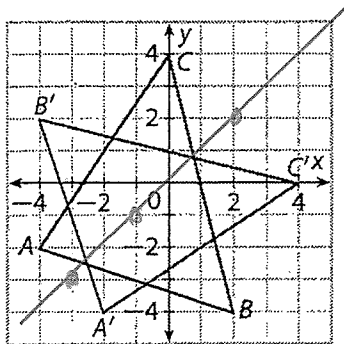
$$\begin{array}{lll}
 A(-4,0) & B(-4,4) & C(-1,3) \\
 A'(-2,-2) & B'(2,-2) & C'(1,1) \\
 \text{mpt} = \left(\frac{-4-2}{2}, \frac{0-2}{2}\right) & \text{MP} = \left(\frac{-4+2}{2}, \frac{4-2}{2}\right) & \left(\frac{-1+1}{2}, \frac{3+1}{2}\right) \\
 = (-3,-1) & (-1,1) & (0,2)
 \end{array}$$

14.



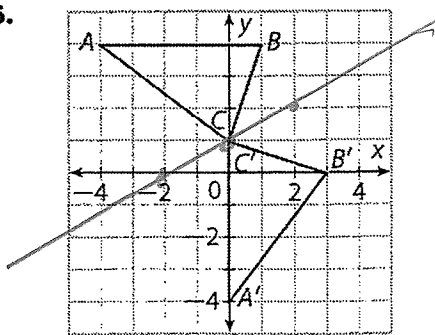
$$\begin{array}{lll}
 A(-4,-1) & B(-3,-4) & C(0,-3) \\
 A'(-2,3) & B'(1,4) & C'(2,1) \\
 \left(\frac{-4-2}{2}, \frac{-1+3}{2}\right) & \left(\frac{-3+1}{2}, \frac{-4+4}{2}\right) & \left(\frac{0+2}{2}, \frac{-3+1}{2}\right) \\
 (-3,1) & (-1,0) & (1,-1)
 \end{array}$$

15.



$$\begin{array}{lll}
 A(-4,-2) & B(2,-4) & C(0,4) \\
 A'(-2,-4) & B'(-4,2) & C'(4,0) \\
 \left(\frac{-4-2}{2}, \frac{-2-4}{2}\right) & \left(\frac{2-4}{2}, \frac{-4+2}{2}\right) & \left(\frac{4}{2}, \frac{4}{2}\right) \\
 (-3,-3) & (-1,-1) & (2,2)
 \end{array}$$

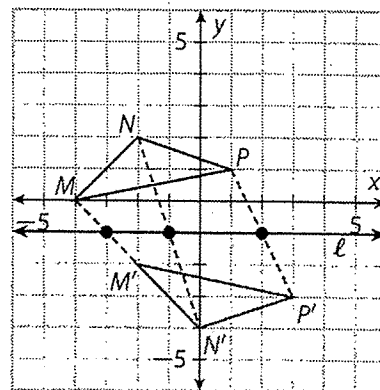
16.



$$\begin{array}{lll}
 A(-4,4) & B(1,4) & C(0,1) \\
 A'(0,-4) & B'(3,0) & C'(0,1) \\
 \left(\frac{-4}{2}, \frac{4-4}{2}\right) & \left(\frac{4}{2}, \frac{4}{2}\right) & (0, \frac{2}{2}) \\
 (-2,0) & (2,2) & (0,1)
 \end{array}$$

H.O.T. Focus on Higher Order Thinking

25. **Explain the Error** $\triangle M'N'P'$ is the image of $\triangle MNP$. Casey draws $\overline{MM'}$, $\overline{NN'}$, and $\overline{PP'}$. Then she finds the midpoint of each segment and draws line ℓ through the midpoints. She claims that line ℓ is the line of reflection. Do you agree? Explain.



No, I disagree.

$$M(-4, 0)$$

$$N(-2, 2)$$

$$P(1, 1)$$

$$M'(-2, -2)$$

$$N'(0, -4)$$

$$P'(3, -3)$$

$$\text{midpt} \left(\frac{-4-2}{2}, \frac{-2}{2} \right)$$

$$\left(\frac{0-2}{2}, \frac{2-4}{2} \right)$$

$$\left(\frac{4}{2}, \frac{1-3}{2} \right)$$

$$(-3, -1)$$

$$(-1, -1)$$

$$(2, -1)$$

The line segmts are not \perp to line of refl.

