Name Key Block___

Rotations & Reflections Practice

Write the rule for each <u>rotation</u> about the origin.

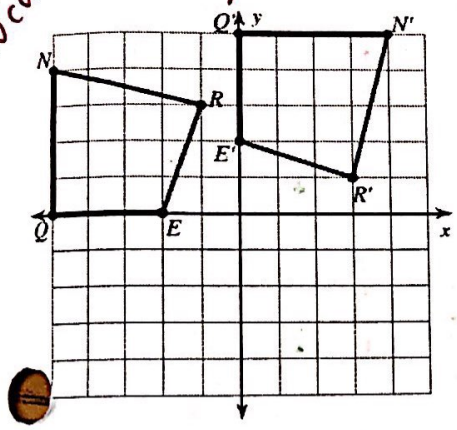
1. $(x, y) \rightarrow (-x, -y)$ 180°

$Z(-1, -5)$, $K(-1, 0)$, $C(1, 1)$, $N(3, -2)$
$Z'(1, 5)$, $K'(1, 0)$, $C'(-1, -1)$, $N'(-3, 2)$

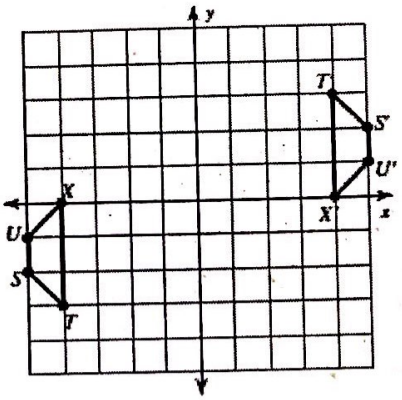
2. $(x, y) \rightarrow (y, -x)$

$S(1, -4)$, $W(1, 0)$, $J(3, -4)$
$S'(-4, -1)$, $W'(0, -1)$, $J'(-4, -3)$

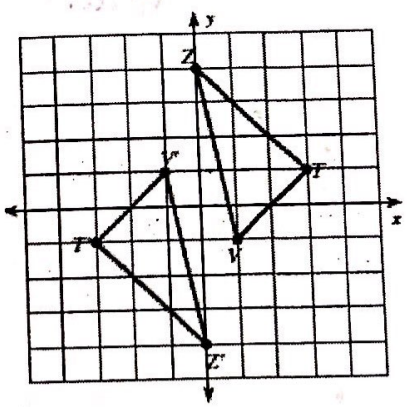
3. $(x, y) \rightarrow (y, -x)$ 90° cw



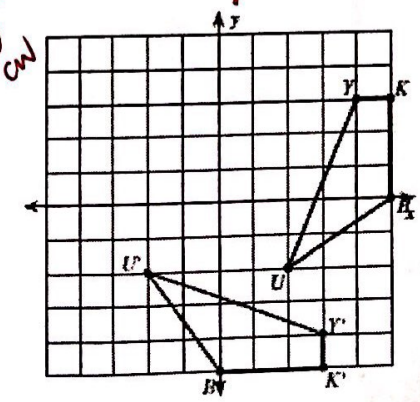
4. $(x, y) \rightarrow (-x, -y)$



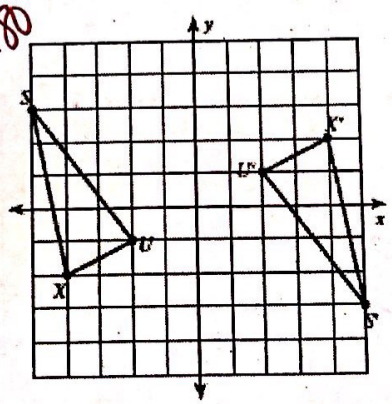
5. $(x, y) \rightarrow (-x, -y)$



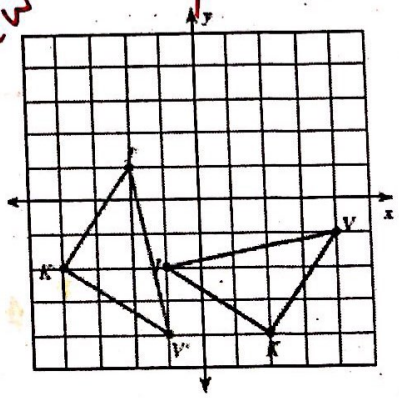
6. $(x, y) \rightarrow (y, -x)$ 90° cw



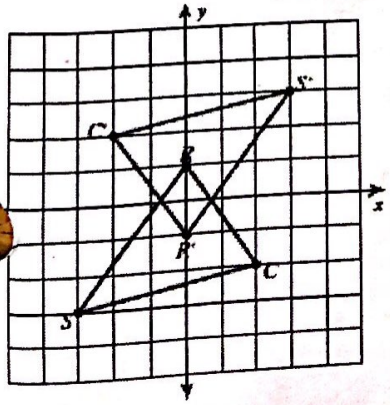
7. $(x, y) \rightarrow (-x, -y)$ 180



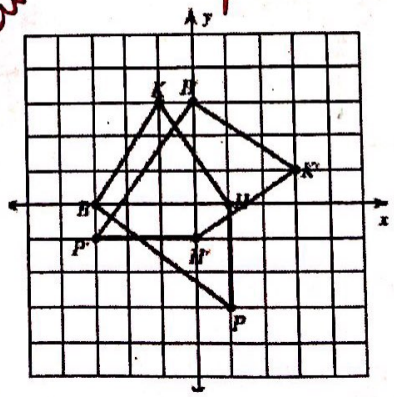
8. $(x, y) \rightarrow (y, -x)$ 90° cw



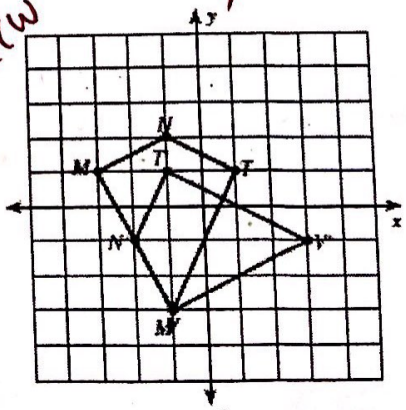
9. $(x, y) \rightarrow (-x, -y)$ 180



10. $(x, y) \rightarrow (y, -x)$ 90° cw

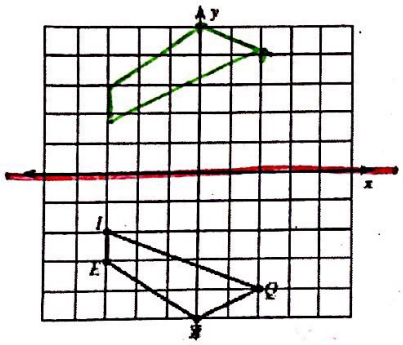


11. $(x, y) \rightarrow (-y, x)$ 90° ccw

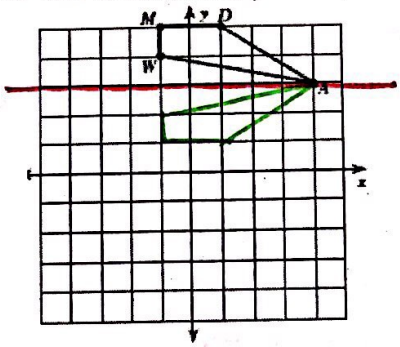


Draw the image of each reflection by the given function rule or line of reflection.

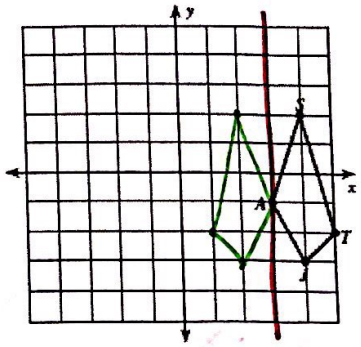
1. Rule: $(x, y) \rightarrow (x, -y)$ x-axis



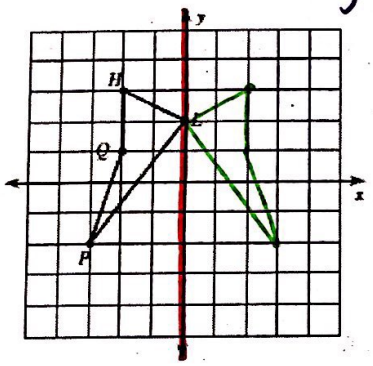
2. Line of reflection: $y = 3$



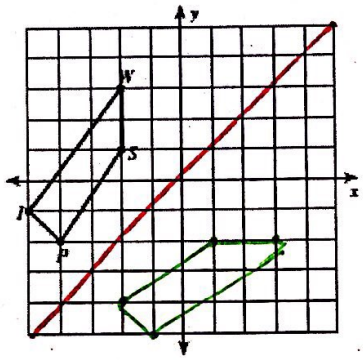
3. Line of reflection : $x = 3$



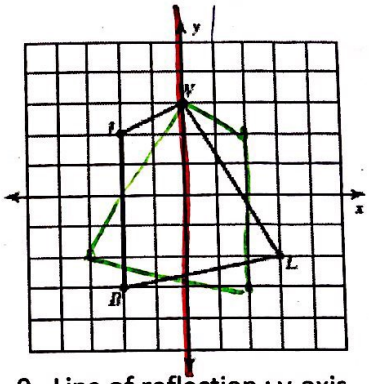
4. Rule: $(x, y) \rightarrow (-x, y)$ y-axis



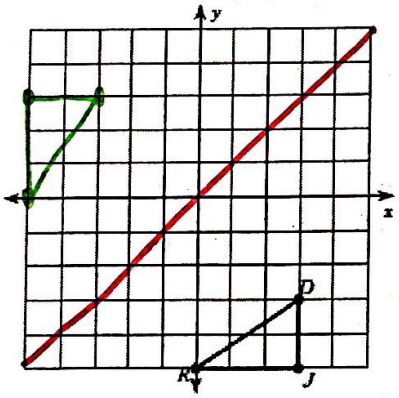
5. Line of reflection: $y = x$



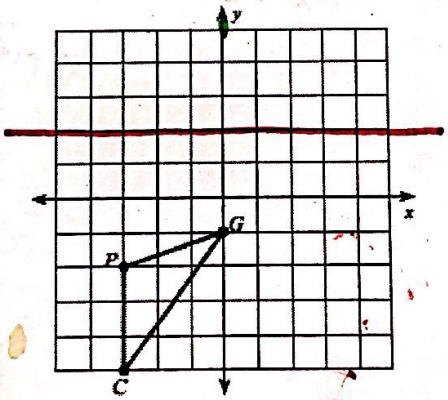
6. Line of reflection : $x = 0$



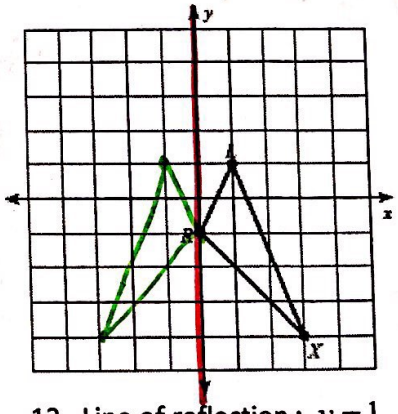
7. Rule: $(x, y) \rightarrow (y, x)$



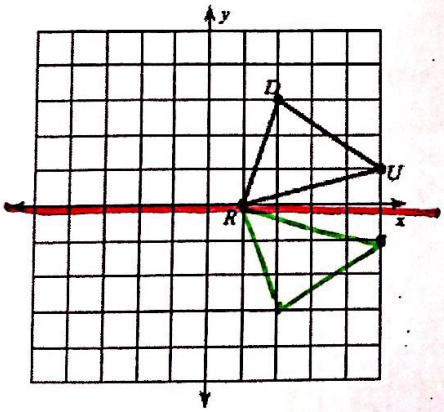
8. Line of reflection: $y = 3$



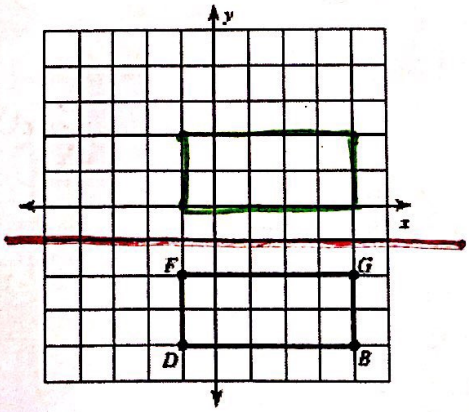
9. Line of reflection : y-axis



10. Rule: $(x, y) \rightarrow (x, -y)$



11. Line of reflection: $y = -1$



12. Line of reflection : $y = 1$