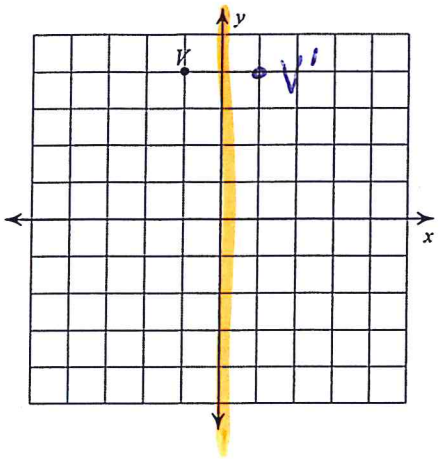
Geometry Name Key

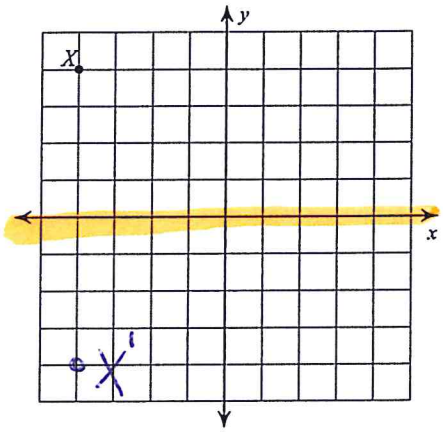
Reflections WS 2

Graph the image of the figure using the transformation given.

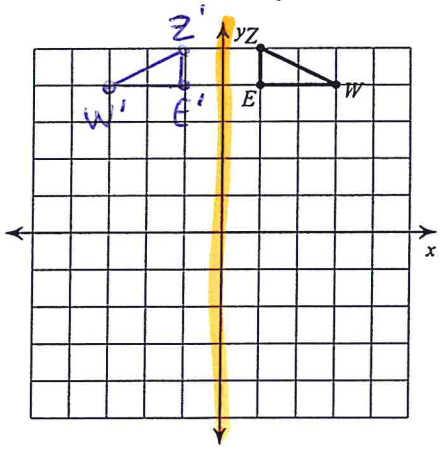
1) reflection across the y-axis



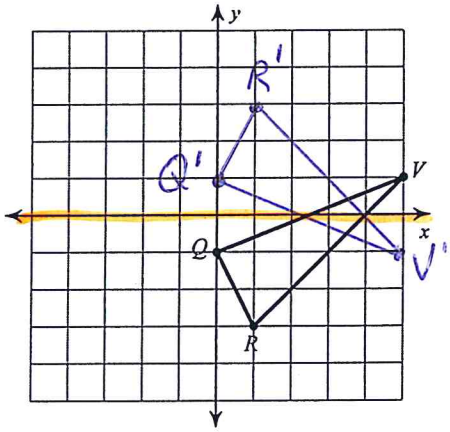
2) reflection across the x-axis



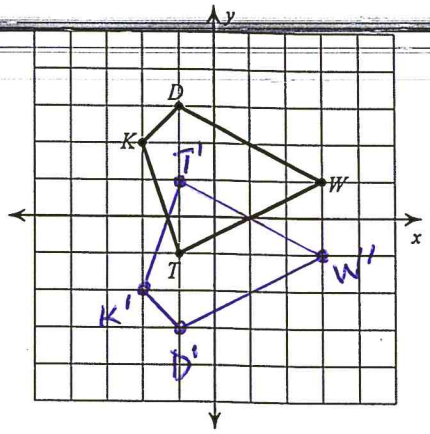
3) reflection across the y-axis



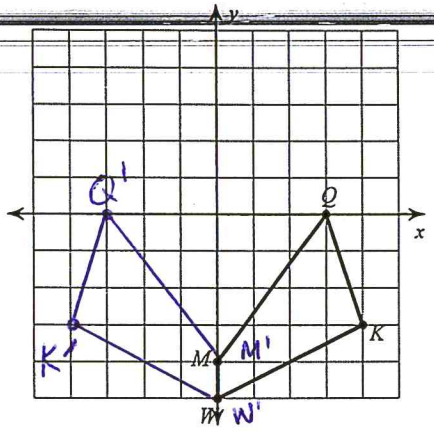
4) reflection across the x-axis



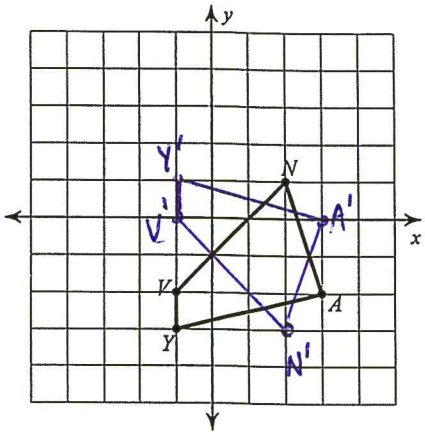
5) reflection across the x-axis



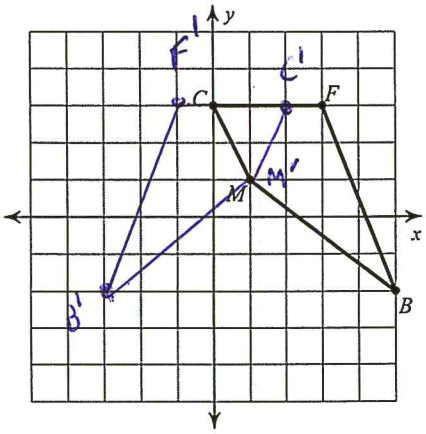
6) reflection across the y-axis



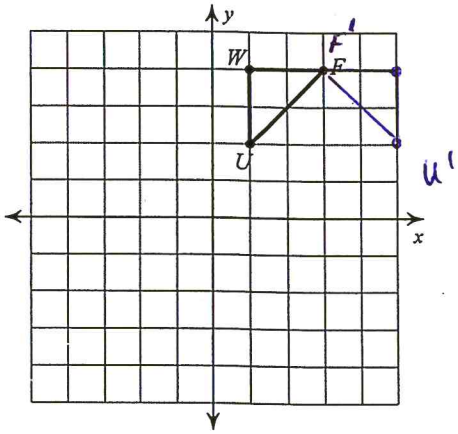
7) reflection across $y = -1$



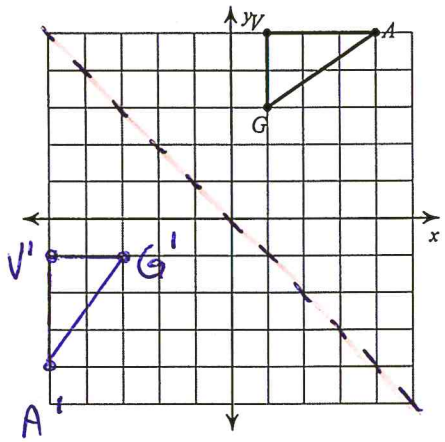
8) reflection across $x = 1$



9) reflection across $x = 3$



10) reflection across $y = -x$



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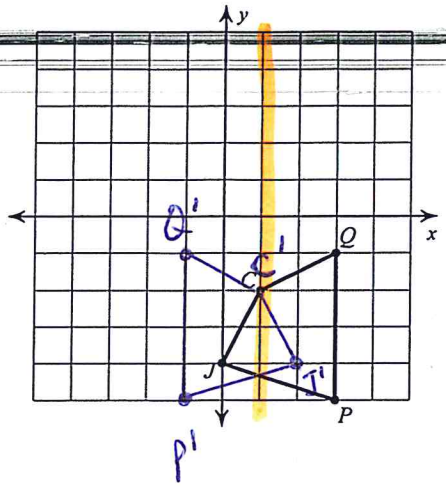
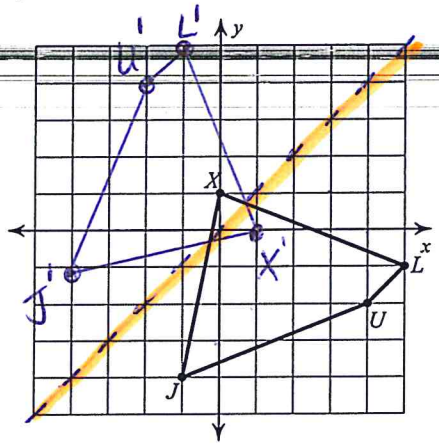
11) reflection across $x = 1$

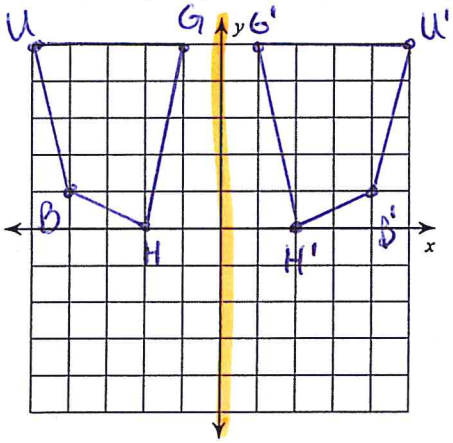


12) reflection across $y = x$



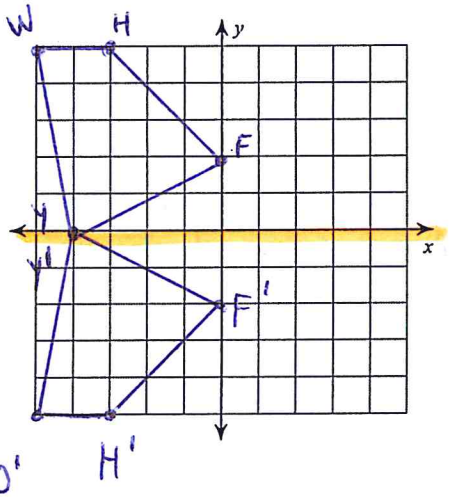
13) reflection across the y-axis

$B(-4, 1)$, $U(-5, 5)$, $G(-1, 5)$, $H(-2, 0)$

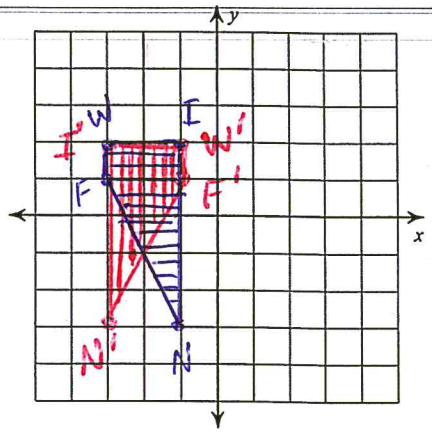


14) reflection across the x-axis

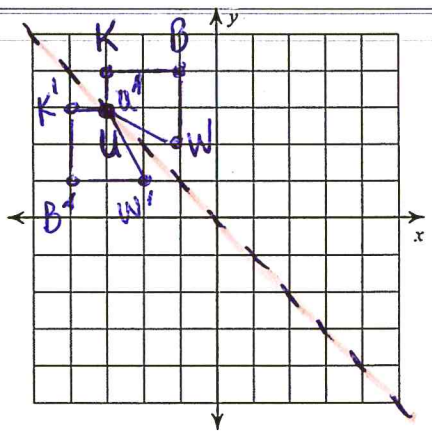
$Y(-4, 0)$, $W(-5, 5)$, $H(-3, 5)$, $F(0, 2)$



15) reflection across $x = -2$
$F(-3, 1), W(-3, 2), I(-1, 2), N(-1, -3)$

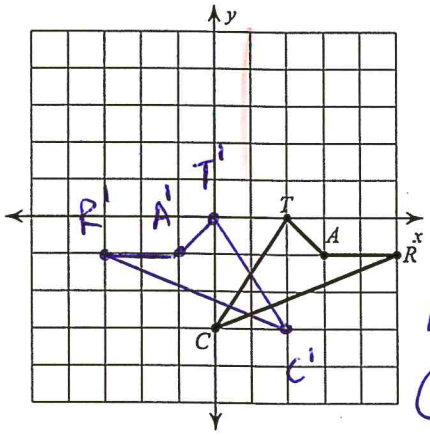


16) reflection across $y = -x$
$U(-3, 3), K(-3, 4), B(-1, 4), W(-1, 2)$



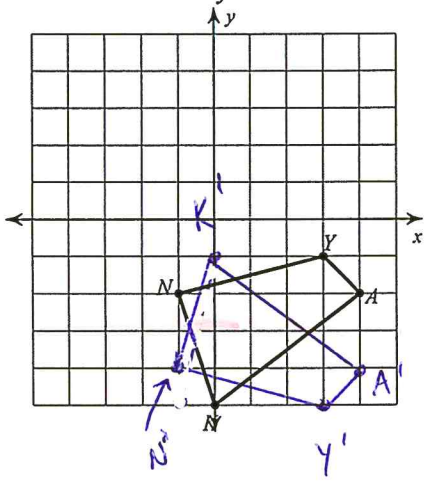
Find the coordinates of the vertices of each figure after the given transformation.

17) reflection across $x = 1$



$T'(0, 0)$
$A'(-1, -1)$
$R'(-3, -1)$
$C'(+2, -3)$

18) reflection across $y = -3$



$A'(4, -4)$
$Y'(3, -1)$
$K'(-1, -4)$
$N'(0, -1)$

19) reflection across $y = 1$
$R(-1, 0), T(-3, 3), Z(1, 5), D(3, 1)$

$R'(-1, 2)$ $T'(-3, -1)$ $Z'(1, -3)$

$D'(3, 1)$ You can graph, of course, but to do it mathematically;

$\frac{\text{old } y + \text{new } y}{2}$ must $= 1$

Ex
$R(-1, 0)$ $\frac{0 + y}{2} = 1$ Double both sides
$0 + y = 2$
$y = 2$ (new y)

20) reflection across $x = 1$
$Q(-1, -5), C(-3, -1), U(1, -1), Y(4, -4)$

$\frac{\text{Old } x + \text{new } x}{2} = 1$

$Q'(3, -5)$ $C'(5, -1)$ $U'(1, -1)$ $Y'(-2, $