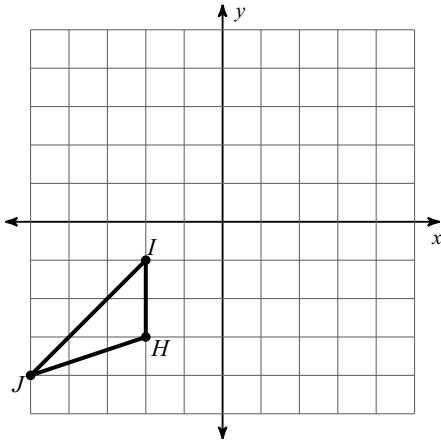


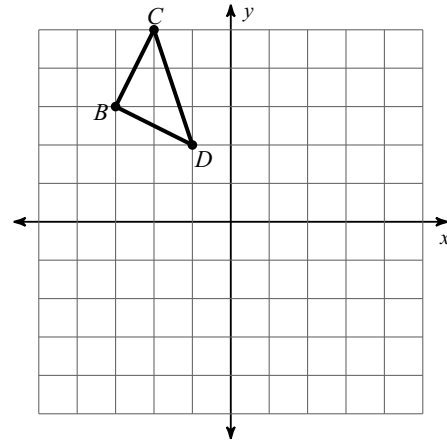
Unit 1 Midterm Homework

Graph the image of the figure using the transformation given.

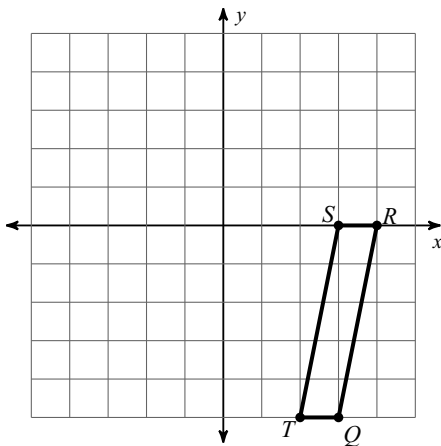
1) rotation 180° about the origin



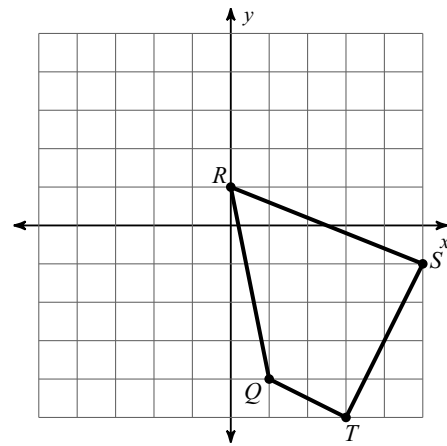
2) reflection across the x-axis



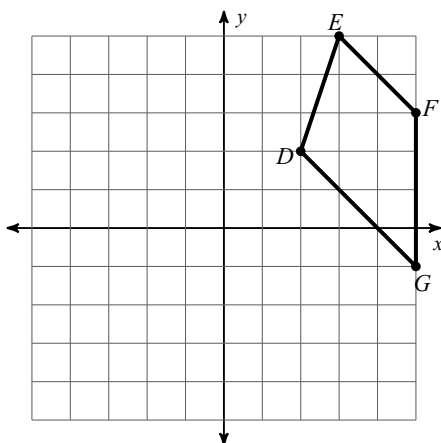
3) rotation 90° clockwise about the origin



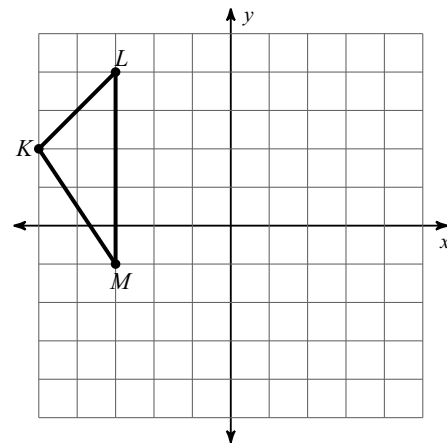
4) reflection across the y-axis



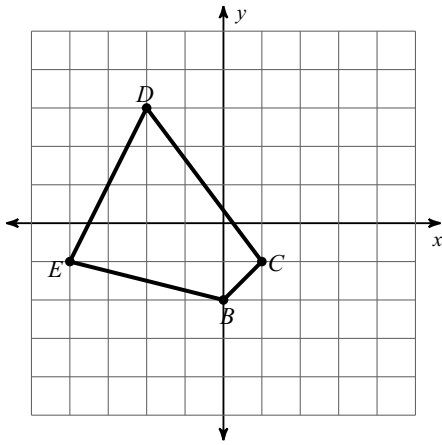
5) rotation 90° counterclockwise about the origin



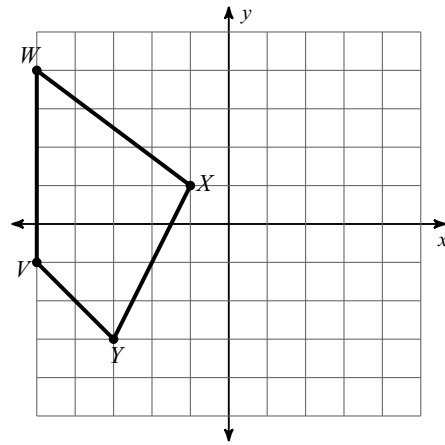
6) reflection across $x = -4$



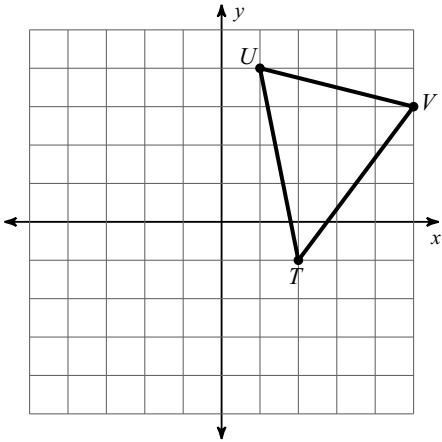
7) reflection across $x = -2$



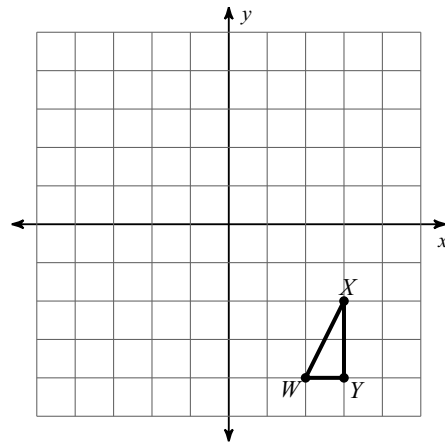
8) rotation 90° clockwise about the origin



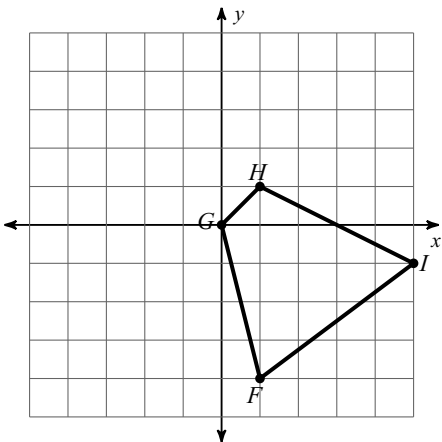
9) rotation 90° counterclockwise about the origin



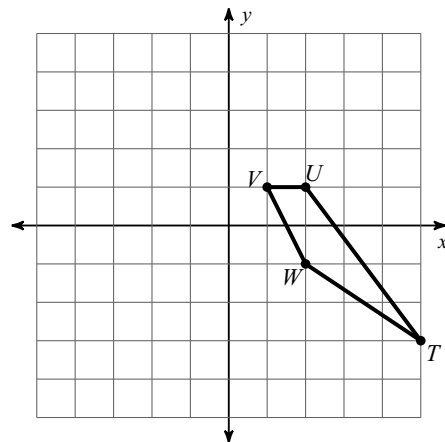
10) translation: 3 units left and 1 unit down



11) translation: 4 units left and 4 units up

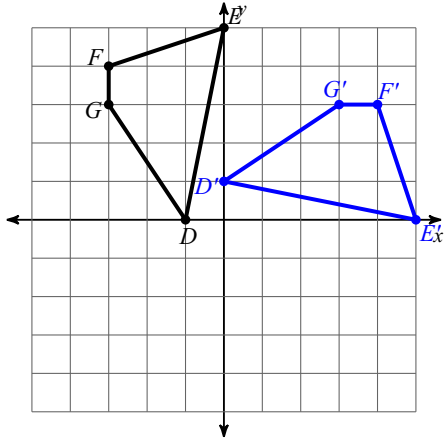


12) rotation 90° counterclockwise about the origin

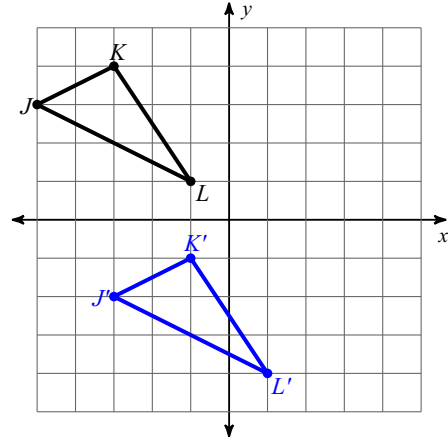


Write a rule to describe each transformation.

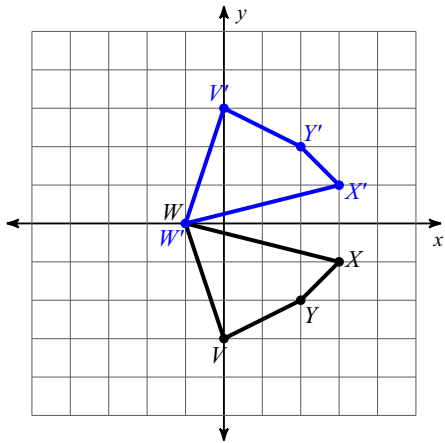
13)



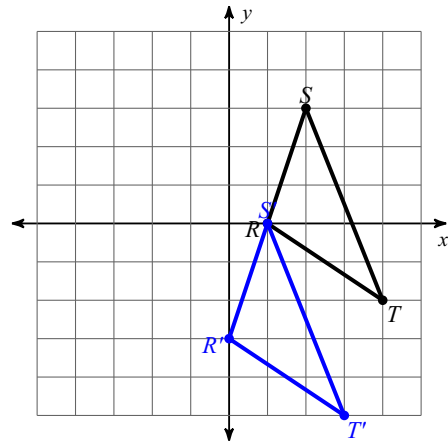
14)



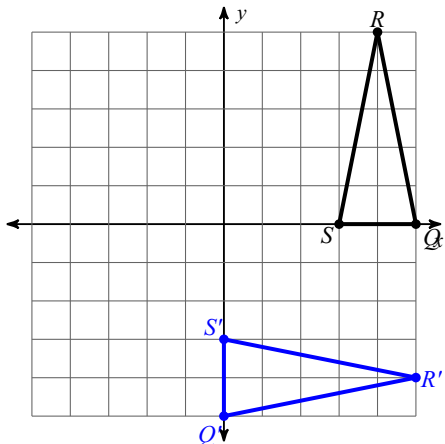
15)



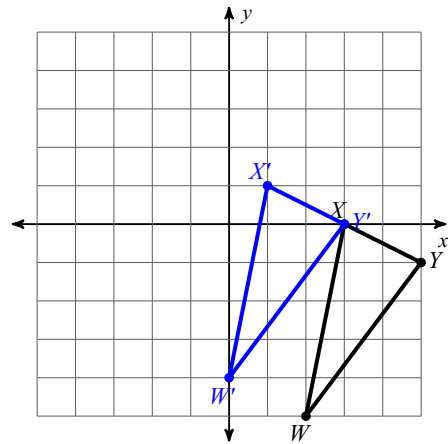
16)



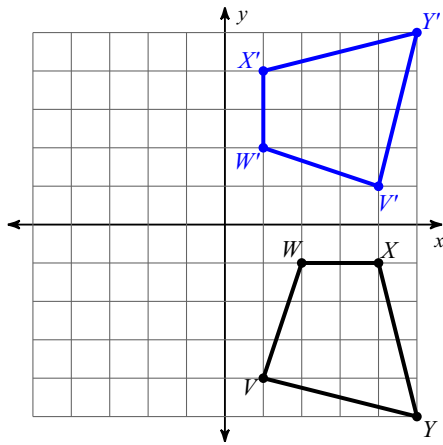
17)



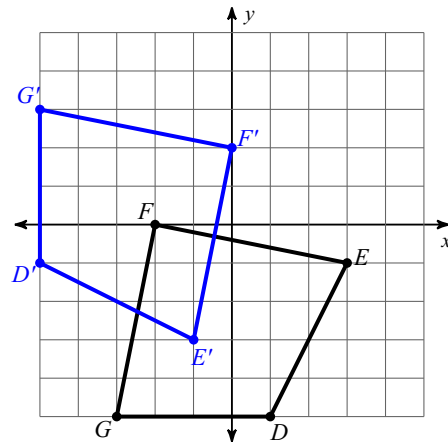
18)



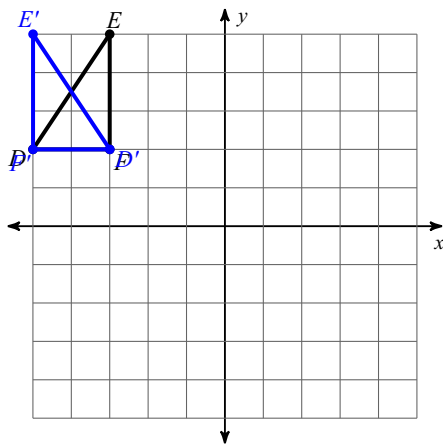
19)



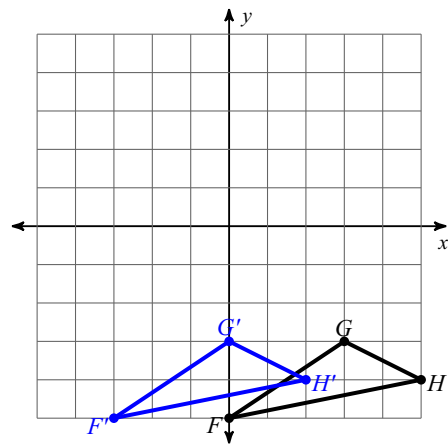
20)



21)



22)



23) $Q(4, -3), R(5, 0), S(5, -3)$
to
 $Q'(-3, -2), R'(-2, 1), S'(-2, -2)$

24) $M(-1, -2), L(1, 3), K(3, -1), J(3, -4)$
to
 $L'(1, -3), K'(3, 1), J'(3, 4), M'(-1, 2)$

25) $R(1, -4), S(1, -3), T(4, 1), U(4, -3)$
to
 $R'(-5, 0), S'(-5, 1), T'(-2, 5), U'(-2, 1)$

26) $A(-4, 3), B(-4, 4), C(-1, 5), D(1, 5)$
to
 $B'(-4, -4), C'(-1, -5), D'(1, -5), A'(-4, -3)$

27) $G(-4, -4), F(-4, -3), E(-1, 0), D(-2, -4)$
to
 $F'(-4, 1), E'(-1, -2), D'(-2, 2), G'(-4, 2)$

28) $D(-3, 1), E(-4, 4), F(-1, 5), G(-2, 0)$
to
 $D'(3, -1), E'(4, -4), F'(1, -5), G'(2, 0)$