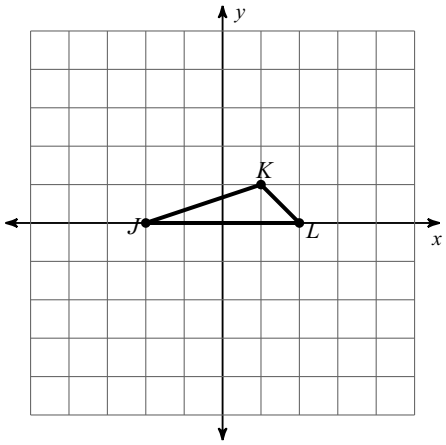
Dilations

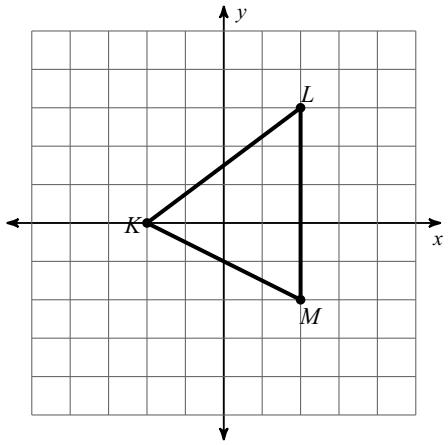
Date_____ Period____ #_____

Graph the image of the figure using the transformation given.

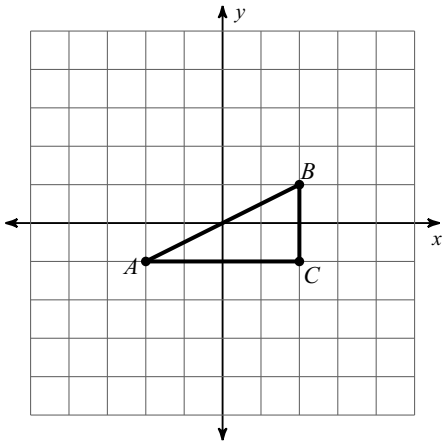
1) dilation of 2 about the origin



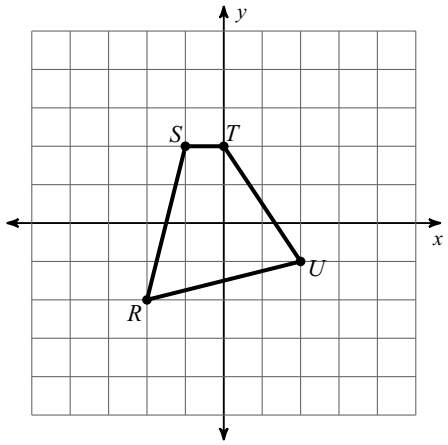
2) dilation of 1.5 about the origin



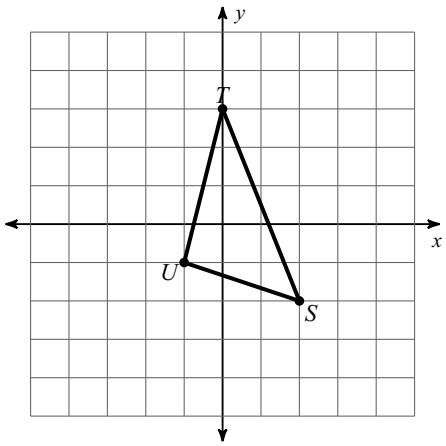
3) dilation of 2 about the origin



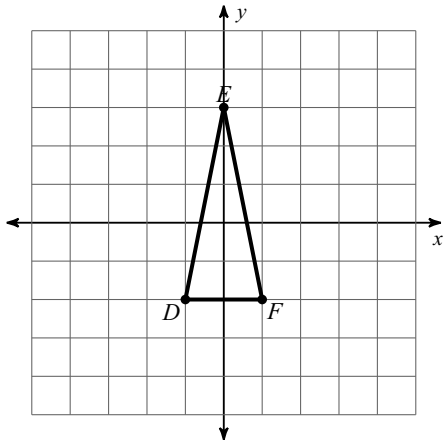
4) dilation of 2 about the origin



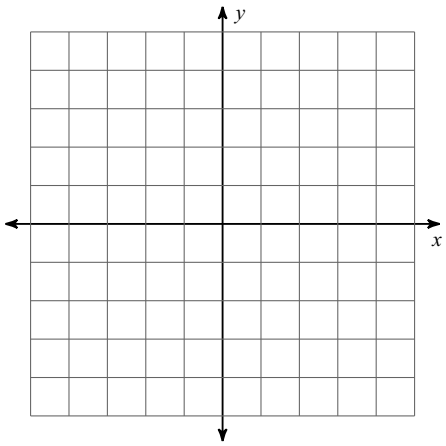
5) dilation of 1.5 about the origin



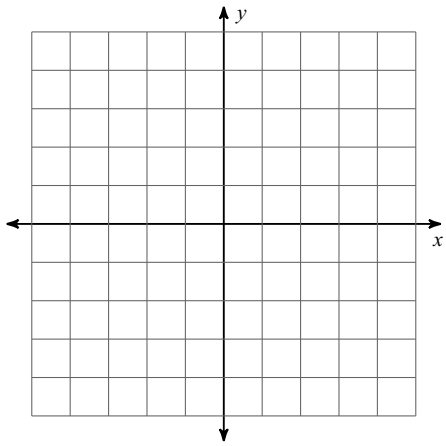
6) dilation of $\frac{3}{2}$ about the origin



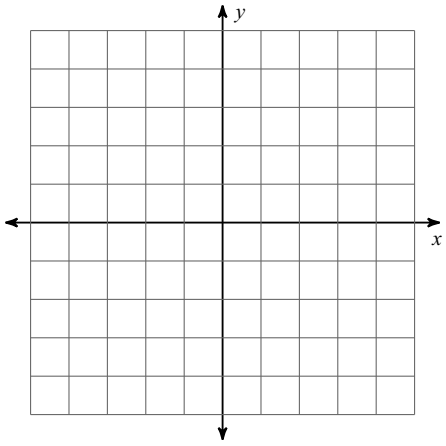
7) dilation of 1.5 about the origin
$K(-2, -2)$, $L(0, 3)$, $M(2, -2)$



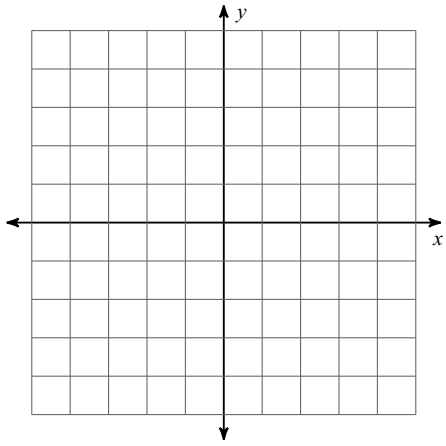
8) dilation of 1.5 about the origin
$W(-1, 1)$, $X(-1, 3)$, $Y(1, 3)$, $Z(0, -2)$



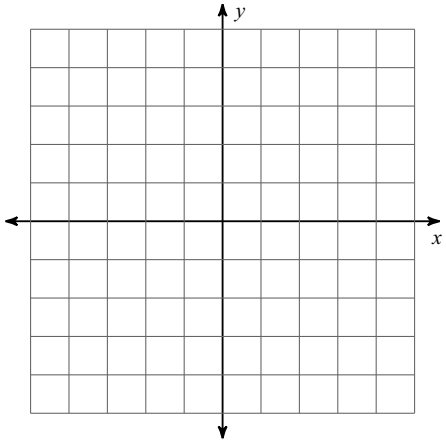
9) dilation of 1.5 about the origin
$Y(-1, 1)$, $X(1, 3)$, $W(2, -2)$



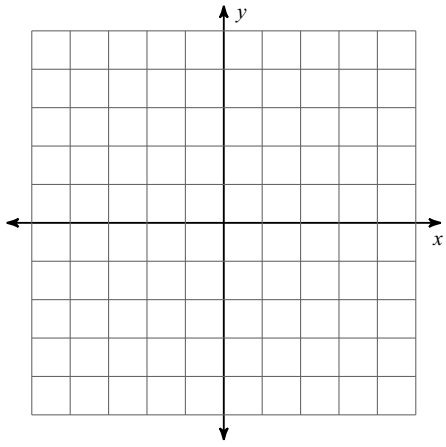
10) dilation of 1.5 about the origin
$S(-2, 0)$, $R(-2, 2)$, $Q(3, 2)$, $P(-1, -1)$



11) dilation of 1.5 about the origin
$Q(-1, 0)$, $R(2, 1)$, $S(2, 0)$

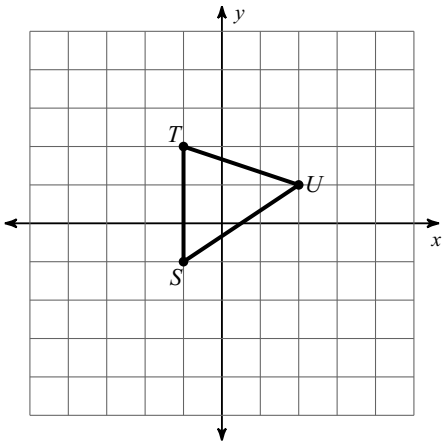


12) dilation of $\frac{3}{2}$ about the origin
$D(-1, 2)$, $E(-1, 3)$, $F(1, 3)$, $G(2, -2)$

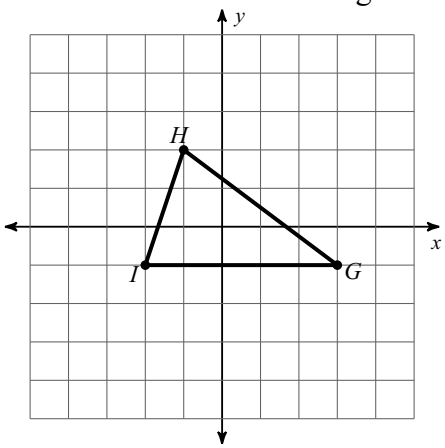


Find the coordinates of the vertices of each figure after the given transformation.

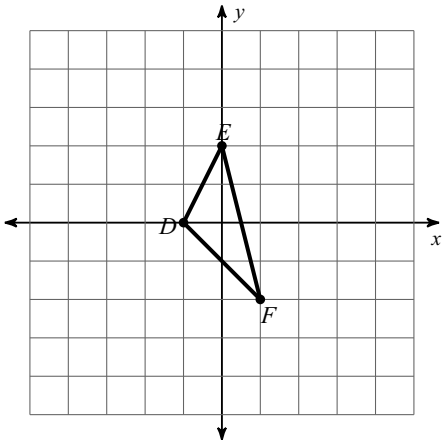
13) dilation of $\frac{3}{2}$ about the origin



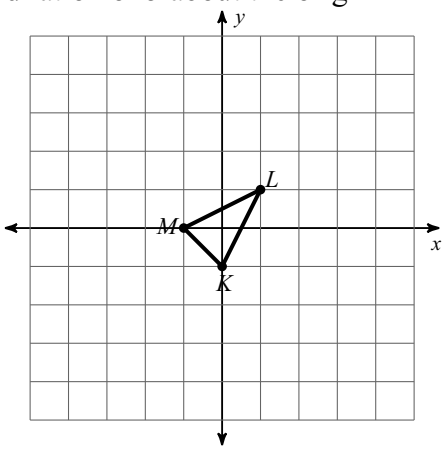
14) dilation of 1.5 about the origin



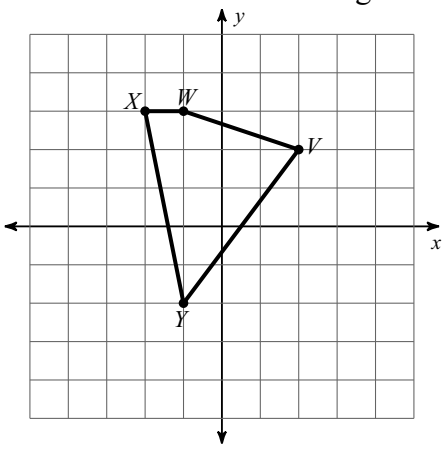
15) dilation of $\frac{5}{2}$ about the origin



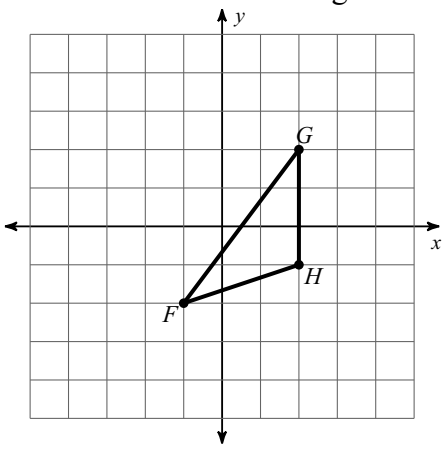
16) dilation of 5 about the origin



17) dilation of 1.5 about the origin



18) dilation of 2 about the origin



19) dilation of 1.5 about the origin
$L(-1, -1)$, $K(0, 3)$, $J(2, -2)$

20) dilation of 1.5 about the origin
$J(-1, 0)$, $K(2, 2)$, $L(0, -1)$

21) dilation of 2.5 about the origin
$F(0, -1)$, $G(0, 1)$, $H(1, 1)$

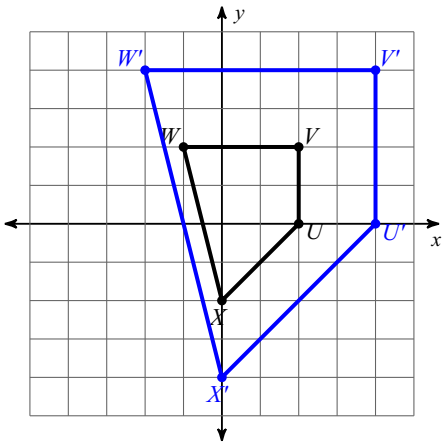
22) dilation of $\frac{1}{4}$ about the origin
$S(-1, -2)$, $T(-2, 2)$, $U(2, -1)$

23) dilation of $\frac{1}{2}$ about the origin
$W(-2, 0)$, $V(2, 2)$, $U(2, -2)$

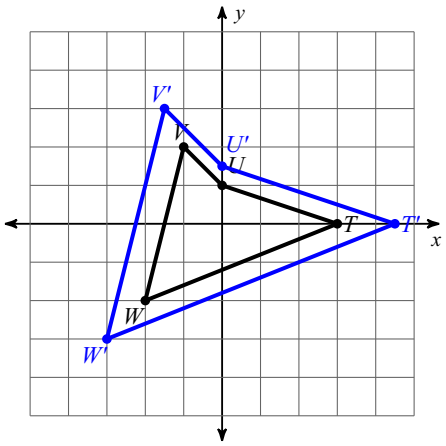
24) dilation of 1.5 about the origin
$H(0, -3)$, $I(-1, 2)$, $J(1, 3)$, $K(2, 0)$

Write a rule to describe each transformation.

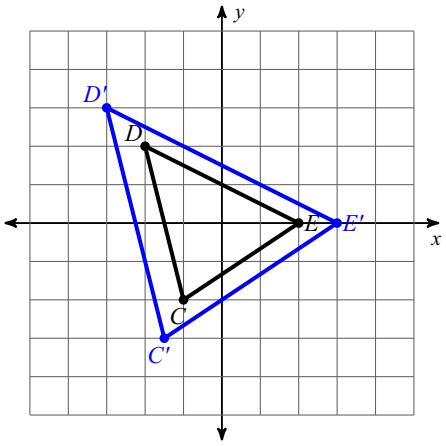
25)



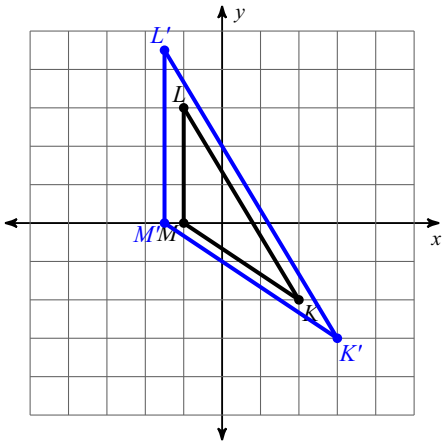
26)



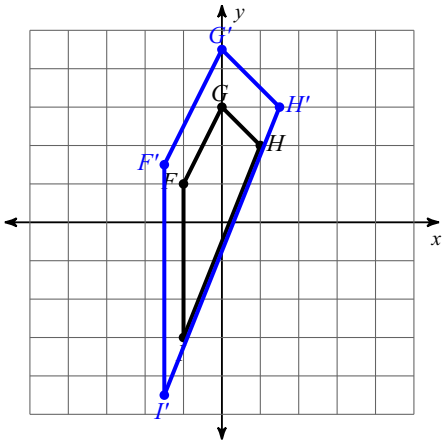
27)



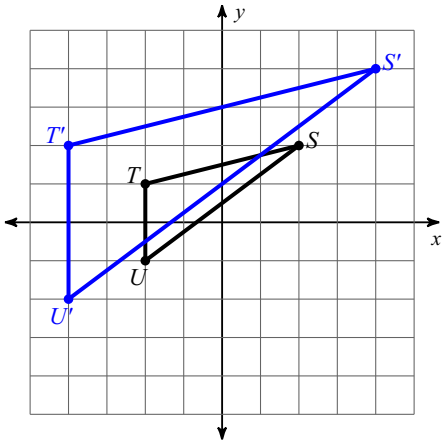
28)



29)



30)



31) $X(-1, -1)$, $W(-1, 1)$, $V(1, 1)$
to
$X'(-4.5, -4.5)$, $W'(-4.5, 4.5)$, $V'(4.5, 4.5)$

32) $J(-2, 1)$, $K(-2, 2)$, $L(2, -1)$, $M(1, -2)$
to
$J'(-5, 2.5)$, $K'(-5, 5)$, $L'(5, -2.5)$, $M'(2.5, -5)$

33) $H(-1, -2)$, $G(1, 2)$, $F(2, -1)$
to
$H'(-1.5, -3)$, $G'(1.5, 3)$, $F'(3, -1.5)$

34) $T(-1, 0)$, $U(2, 1)$, $V(2, 0)$
to
$T'(-2.5, 0)$, $U'(5, 2.5)$, $V'(5, 0)$

35) $T(-1, -1)$, $S(0, 2)$, $R(2, 1)$
to
$T'(-2.5, -2.5)$, $S'(0, 5)$, $R'(5, 2.5)$

36) $H(-1, 1)$, $G(0, 3)$, $F(2, 2)$, $E(0, -2)$
to
$H'(-1.5, 1.5)$, $G'(0, 4.5)$, $F'(3, 3)$, $E'(0, -3)$