

Dilations

Date _____ Period _____

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

1) dilation of 4.5

$I(-1, 0), M(-1, 1), B(1, 0)$

2) dilation of 0.25

$X(2, -1), G(4, 4), W(4, -1)$

3) dilation of 1.5

$Q(-1, 0), S(-1, 1), Z(2, 0)$

4) dilation of 0.25

$J(0, 4), V(1, 5), G(3, 3), E(-1, 0)$

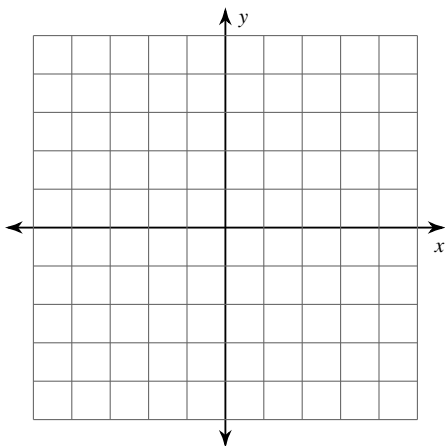
5) dilation of $\frac{3}{2}$

$P(-2, 2), L(-2, 3), I(2, 0), Z(1, -2)$

Graph the image of the figure using the transformation given.

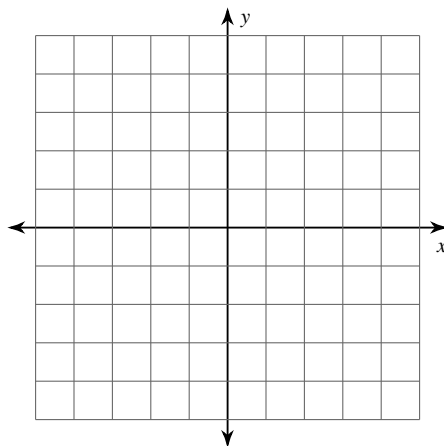
6) dilation of 1.5

$J(-1, -1), U(1, 3), W(0, -2)$



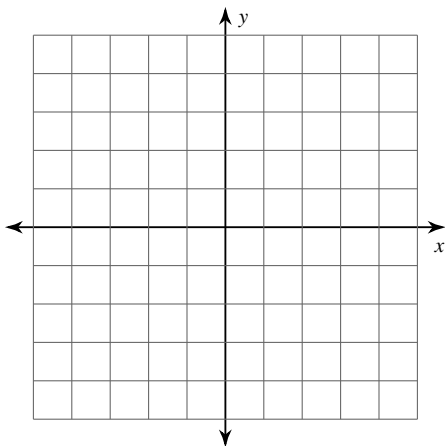
7) dilation of 1.5

$S(-1, 0), V(0, 1), E(3, -3)$



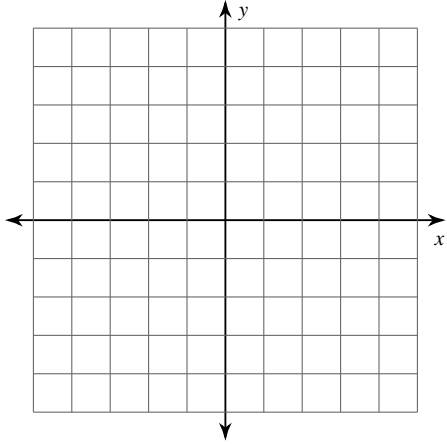
8) dilation of 1.5

$U(0, -2), K(-1, 3), E(1, 2), H(2, -2)$



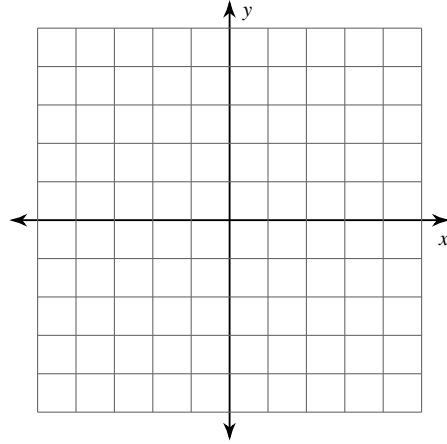
9) dilation of $\frac{1}{2}$

$S(0, 3), T(1, 5), L(5, 2), F(5, 1)$

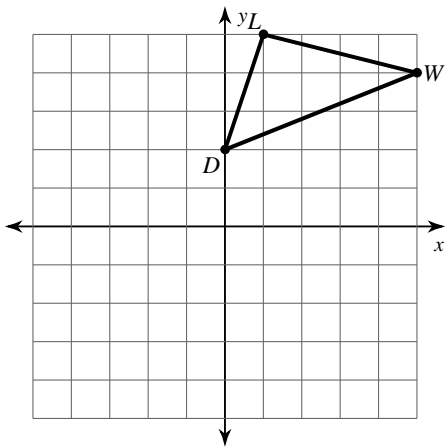


10) dilation of $\frac{3}{2}$

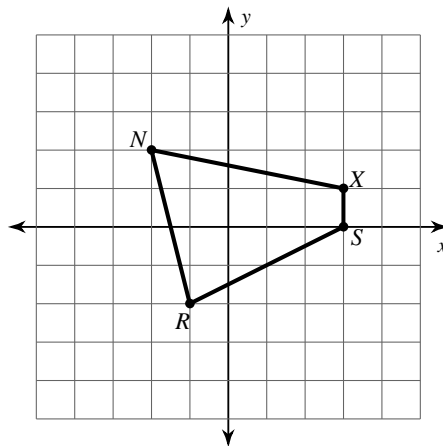
$J(-1, -2), C(-3, 3), Z(1, 3), L(3, 1)$



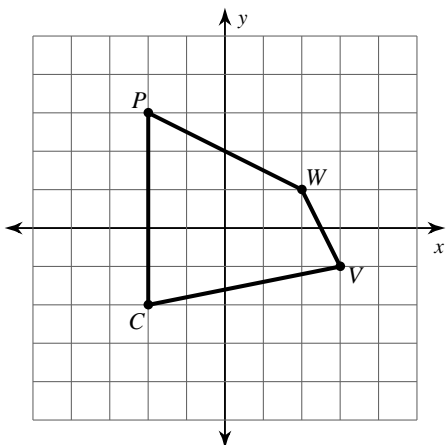
11) dilation of $\frac{1}{2}$



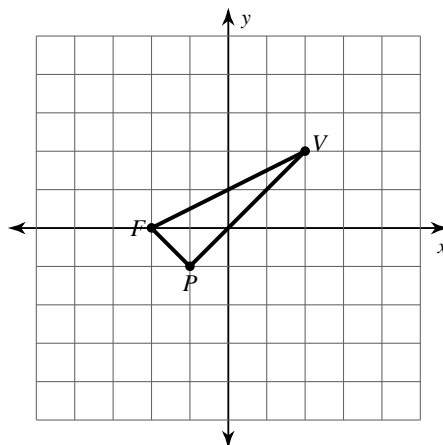
12) dilation of 1.5



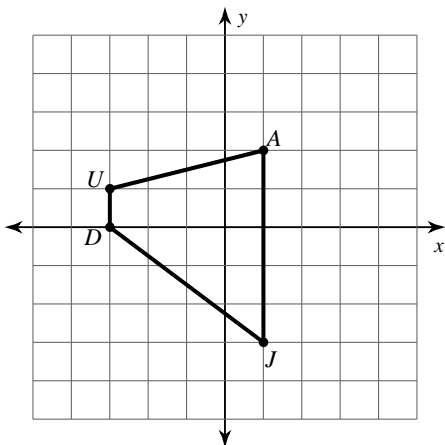
13) dilation of 1.5



14) dilation of 1.5



15) dilation of $\frac{3}{2}$



Write a rule to describe each transformation.

16) $U(-2, -1), K(0, 2), F(2, -2)$

to

$U'(-3, -1.5), K'(0, 3), F'(3, -3)$

17) $V(-1, -2), K(-1, 3), Y(1, 0)$

to

$V'(-1.5, -3), K'(-1.5, 4.5), Y'(1.5, 0)$

18) $K(-1, -2), U(-2, 2), V(2, 2), Q(2, -1)$

to

$K'(-2, -4), U'(-4, 4), V'(4, 4), Q'(4, -2)$

19) $N(-4, 1), T(-5, 3), J(-4, 3), C(-1, 0)$

to

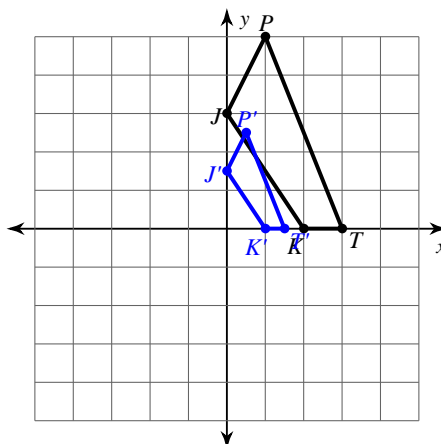
$N'(-1, 0.25), T'(-1.25, 0.75), J'(-1, 0.75), C'(-0.25, 0)$

20) $K(-1, 0), N(-2, 2), H(3, 3), T(3, -2)$

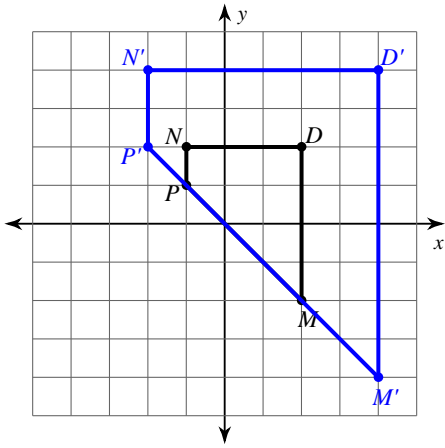
to

$K'(-1.5, 0), N'(-3, 3), H'(4.5, 4.5), T'(4.5, -3)$

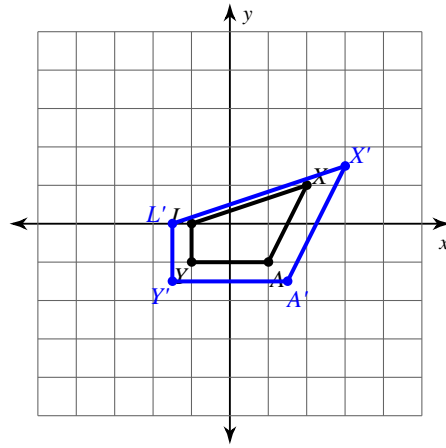
21)



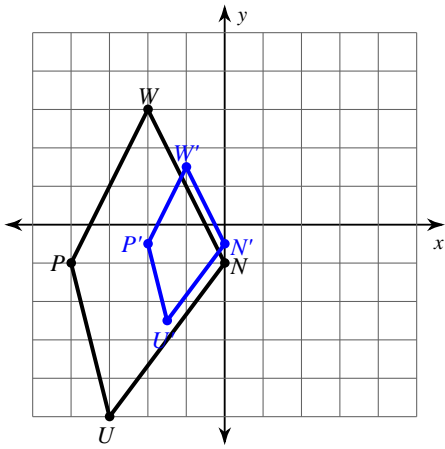
22)



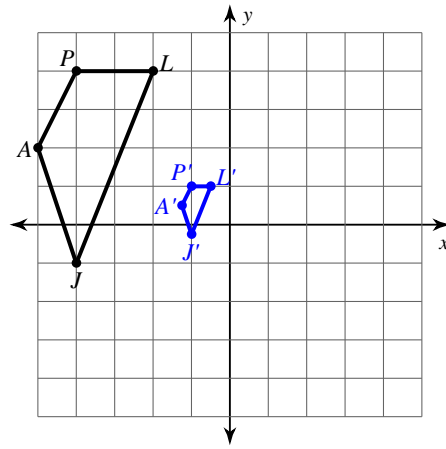
23)



24)



25)



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

1) dilation of 4.5

$I(-1, 0), M(-1, 1), B(1, 0)$

$I'(-4.5, 0), M'(-4.5, 4.5), B'(4.5, 0)$

2) dilation of 0.25

$X(2, -1), G(4, 4), W(4, -1)$

$X'(0.5, -0.25), G'(1, 1), W'(1, -0.25)$

3) dilation of 1.5

$Q(-1, 0), S(-1, 1), Z(2, 0)$

$Q'(-1.5, 0), S'(-1.5, 1.5), Z'(3, 0)$

4) dilation of 0.25

$J(0, 4), V(1, 5), G(3, 3), E(-1, 0)$

$J'(0, 1), V'(0.25, 1.25), G'(0.75, 0.75), E'(-0.25, 0)$

5) dilation of $\frac{3}{2}$

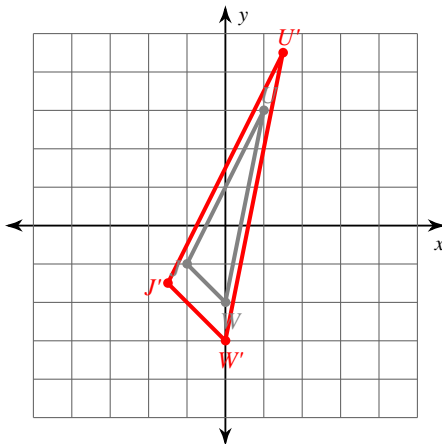
$P(-2, 2), L(-2, 3), I(2, 0), Z(1, -2)$

$P'(-3, 3), L'(-3, 4.5), I'(3, 0), Z'(1.5, -3)$

Graph the image of the figure using the transformation given.

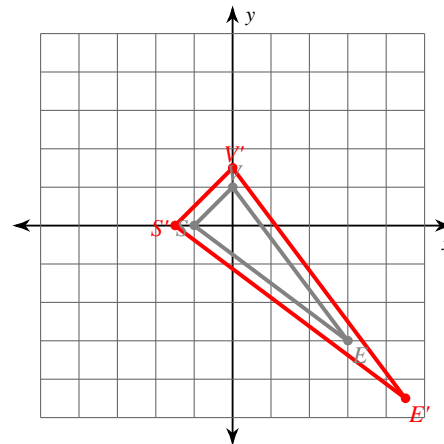
6) dilation of 1.5

$J(-1, -1), U(1, 3), W(0, -2)$



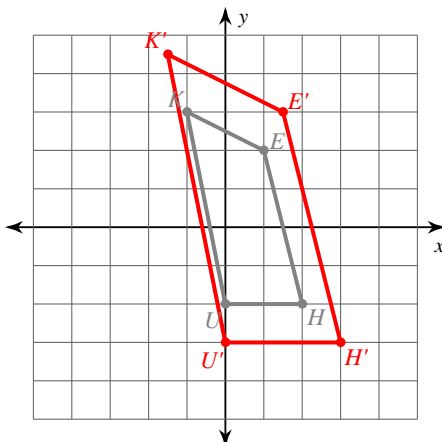
7) dilation of 1.5

$S(-1, 0), V(0, 1), E(3, -3)$



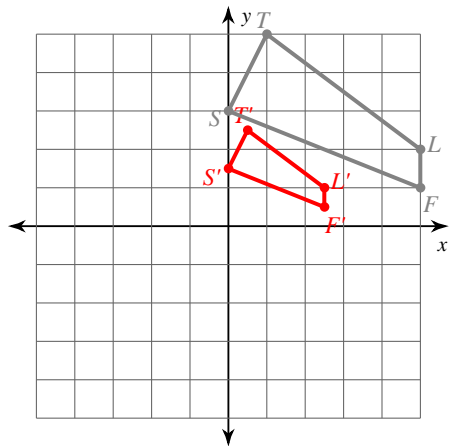
8) dilation of 1.5

$U(0, -2), K(-1, 3), E(1, 2), H(2, -2)$



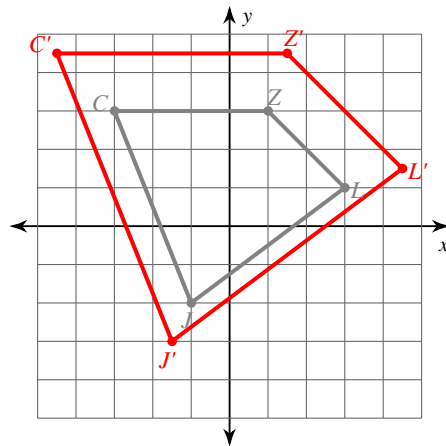
9) dilation of $\frac{1}{2}$

$S(0, 3), T(1, 5), L(5, 2), F(5, 1)$

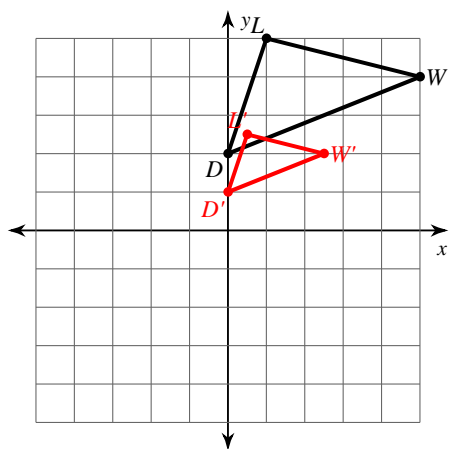


10) dilation of $\frac{3}{2}$

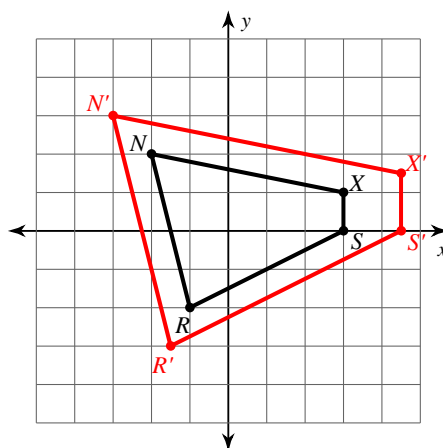
$J(-1, -2), C(-3, 3), Z(1, 3), L(3, 1)$



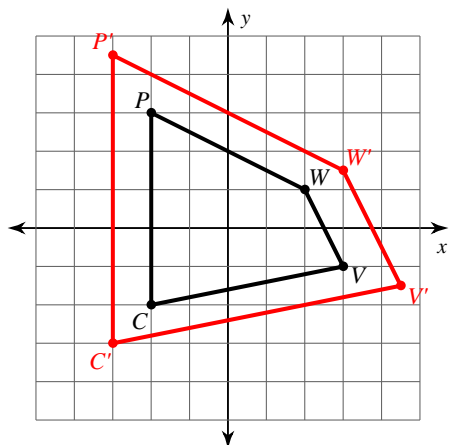
11) dilation of $\frac{1}{2}$



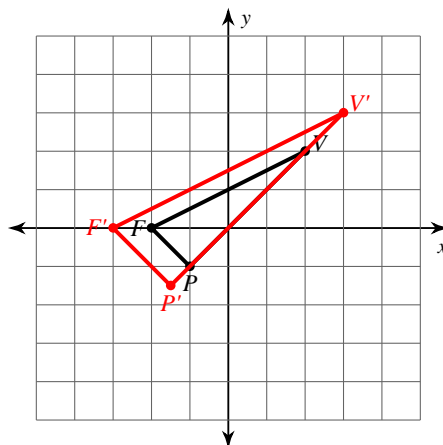
12) dilation of 1.5



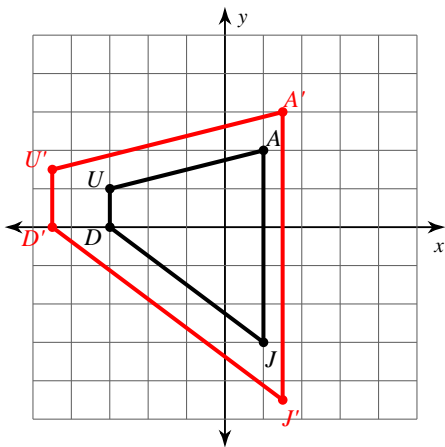
13) dilation of 1.5



14) dilation of 1.5



15) dilation of $\frac{3}{2}$



Write a rule to describe each transformation.

16) $U(-2, -1), K(0, 2), F(2, -2)$ dilation of $\frac{3}{2}$
 to
 $U'(-3, -1.5), K'(0, 3), F'(3, -3)$

17) $V(-1, -2), K(-1, 3), Y(1, 0)$
 to
 $V'(-1.5, -3), K'(-1.5, 4.5), Y'(1.5, 0)$
 dilation of 1.5

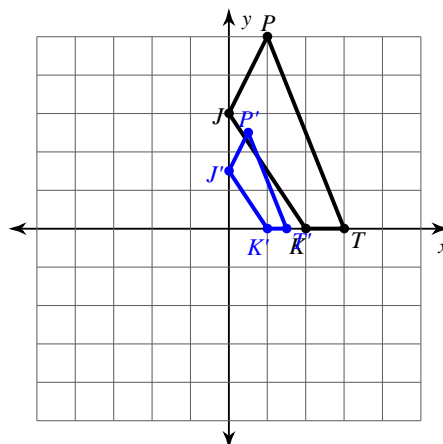
18) $K(-1, -2), U(-2, 2), V(2, 2), Q(2, -1)$
 to
 $K'(-2, -4), U'(-4, 4), V'(4, 4), Q'(4, -2)$
 dilation of 2

19) $N(-4, 1), T(-5, 3), J(-4, 3), C(-1, 0)$
 to
 $N'(-1, 0.25), T'(-1.25, 0.75), J'(-1, 0.75), C'(-0.25, 0)$

dilation of $\frac{1}{4}$

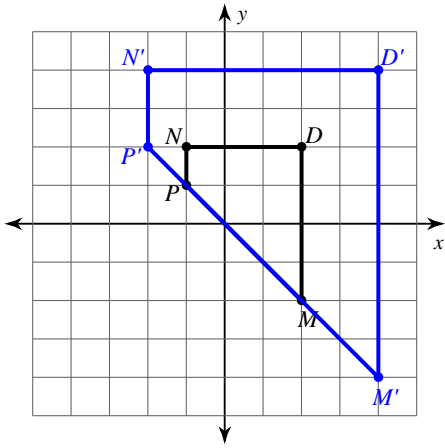
20) $K(-1, 0), N(-2, 2), H(3, 3), T(3, -2)$
 to
 $K'(-1.5, 0), N'(-3, 3), H'(4.5, 4.5), T'(4.5, -3)$
 dilation of 1.5

21)



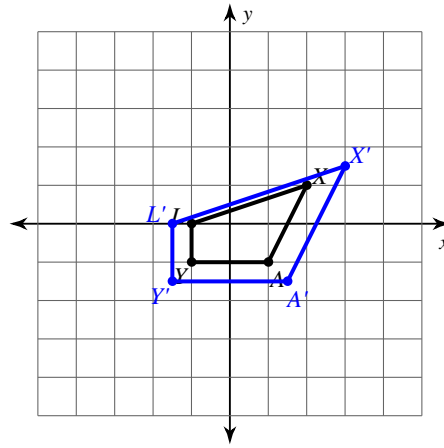
dilation of 0.5

22)



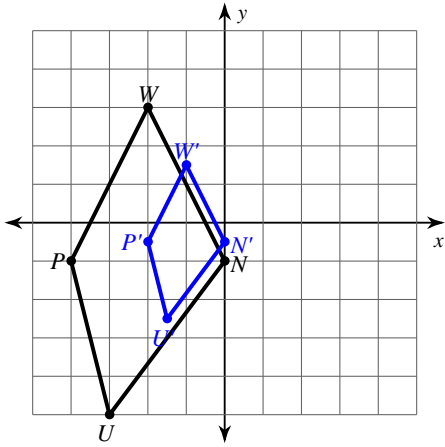
dilation of 2

23)



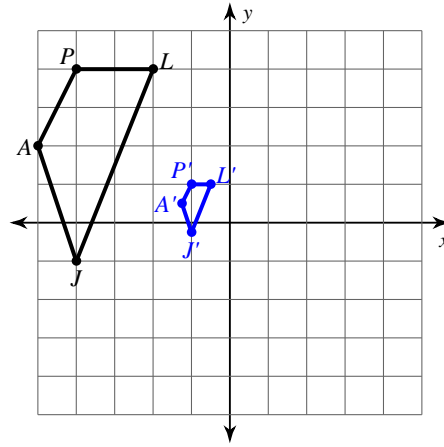
dilation of 1.5

24)



dilation of $\frac{1}{2}$

25)



dilation of 0.25