

Find the coordinates of the vertices of each figure after it has been dilated by the given scale factor about the origin.

$$k = \frac{\text{Image}}{\text{PreImage}}$$

1) dilation of 0.5

$D(3, -4), V(2, 1), C(4, -1)$
 $D'(1.5, -2), V'(1, \frac{1}{2}), C'(2, -\frac{1}{2})$

Write a rule to describe each dilation about the origin.

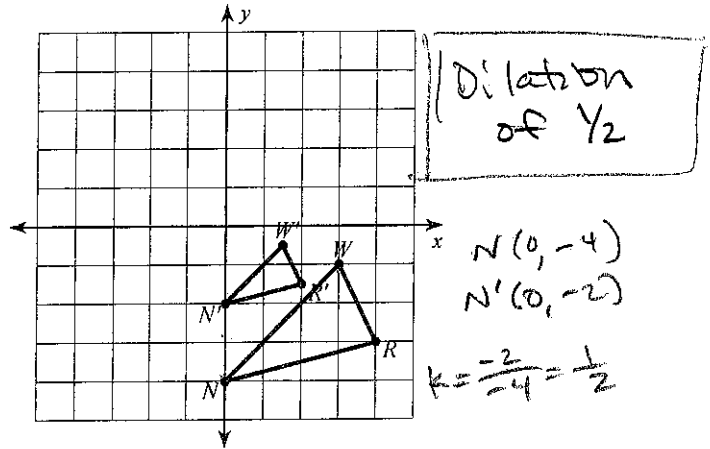
2) dilation of 5

$K(0, 1), J(1, 1), I(1, -1)$
 $K'(0, 5), J'(5, 5), I'(5, -5)$

3) $X(-1, 0), G(0, 1), W(1, -1)$
 to
 $X'(-4, 0), G'(0, 4), W'(4, -4)$ } Dilation of 4

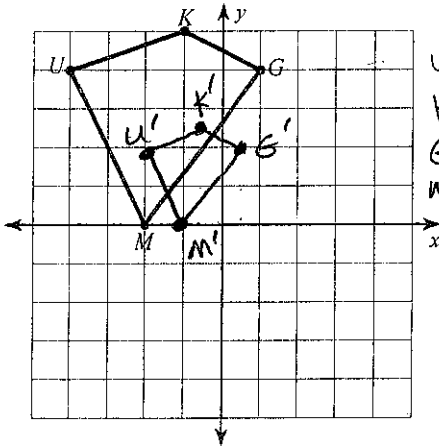
$$D_{0, 4}(x, y) \rightarrow (4x, 4y)$$

4)



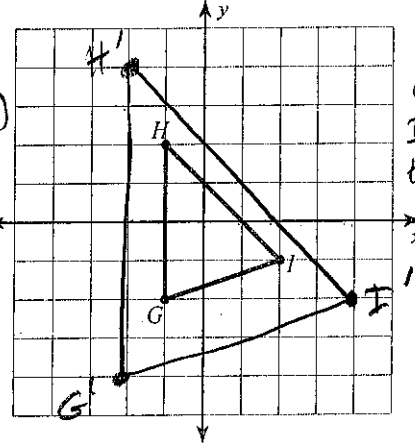
Find the coordinates of the vertices of each figure after the given dilation about the origin.

5) dilation of 0.5



$U(-4, 4) U'(-2, 2)$
 $K(-1, 5) K'(-\frac{1}{2}, 2.5)$
 $G(1, 4) G'(\frac{1}{2}, 2)$
 $M(-2, 0) M'(-1, 0)$

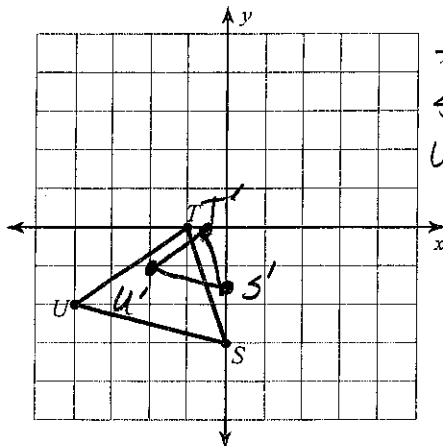
6) dilation of 2



$G(-1, -2) G'(-2, -4)$
 $I(2, -1) I'(4, -2)$
 $H(-1, 2) H'(-2, 4)$

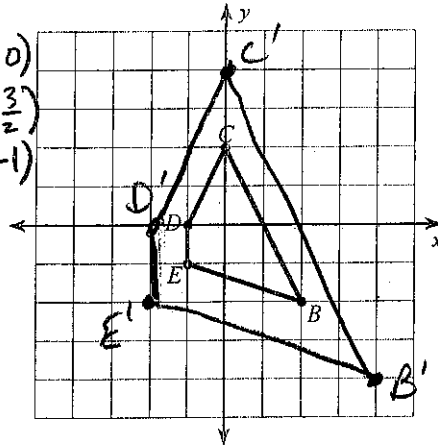
Graph the image of the figure using the given dilation about the origin.

7) dilation of 0.5



$T(-1, 0) T'(-\frac{1}{2}, 0)$
 $S(0, -3) S'(0, -\frac{3}{2})$
 $U(-4, -2) U'(-2, -1)$

8) dilation of 2



$B(2, -2) B'(4, -4)$
 $C(0, 2) C'(0, 4)$
 $D(-1, 0) D'(-2, 0)$
 $E(-1, -1) E'(-2, -2)$