

**Geometry**  
**Classwork - Dilations**

Name: key

Date: \_\_\_\_\_

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

1. dilation of 0.5

D(3, -4), V(2, 1), C(4, -1)

$D'(1.5, -2)$   $V'(1, 0.5)$   $C'(2, -0.5)$

Describe the 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  $X'(-4, 0)$ ,  $G'(0, 4)$ ,  $W'(4, -4)$

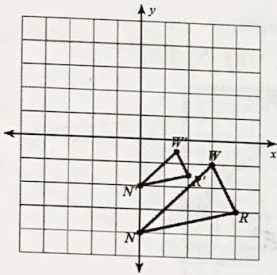
4

4. P(-5, 1), Q(-5, 2), R(-3, 3), S(-4, 1)

to  $P'(-2.5, 0.5)$ ,  $Q'(-2.5, 1)$ ,  $R'(-1.5, 1.5)$ ,  $S'(-2, 0.5)$

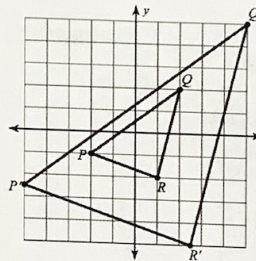
1/2

5.



1/2

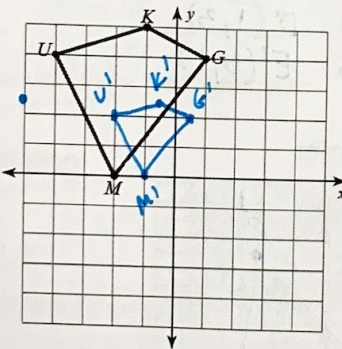
6.



5/2

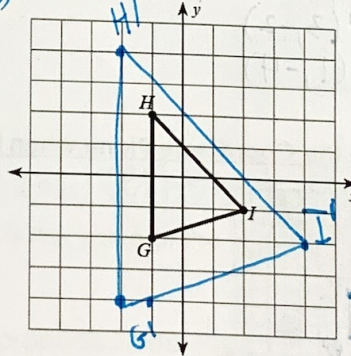
Find the vertices after the given dilation about the origin and graph.

7. dilation of 0.5



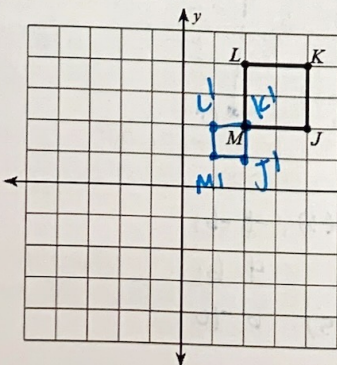
$K(-1, 5)$   $(-5, 2.5)$   
 $G(1, 4)$   $(5, 2)$   
 $M(-2, 0)$   $(-1, 0)$   
 $U(-4, 4)$   $(-2, 2)$

8. dilation of 2



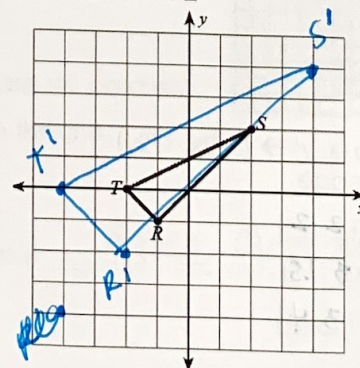
$H(-1, 2)$   $(-2, 4)$   
 $I(2, -1)$   $(4, -2)$   
 $G(-1, -2)$   $(-2, -4)$

9. dilation of 1/2



$J(4, 2)$   $(2, 1)$   
 $K(4, 4)$   $(2, 2)$   
 $L(2, 4)$   $(1, 2)$   
 $M(2, 2)$   $(1, 1)$

10. dilation of 2



$S(2, 2)$   $(4, 4)$   
 $T(-2, 0)$   $(-4, 0)$   
 $R(-1, -1)$   $(-2, -2)$