Name: _____ Block: _____

Dilations

- In a dilation, we are just _____ the image.
  - Dilations are NOT isometric.
  - When we dilate an image, the side lengths change, the angles do not.
  - This is the one transformation where the pre- image and image are similar, but not congruent.

Scale Factor:

- We use "k" to represent scale factor.
- We multiply by k to find the image.

1. Determine if the scale factor represents a reduction, enlargement, or congruence.
   a. k = 1/3 b. k = 2.5 c. k = 50% d. k = 200%

2. Dilate the image by k=2.

$A(-2,4) \rightarrow A'$_____

$B(0,-8) \rightarrow B'$_____

$C(-3,5) \rightarrow C'$_____

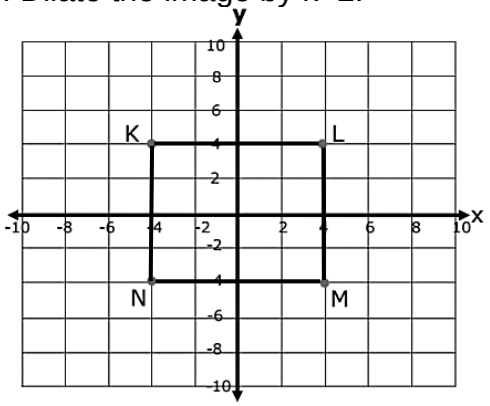
3. Dilate the image by k= ½.

$D(1,2) \rightarrow D'$_____

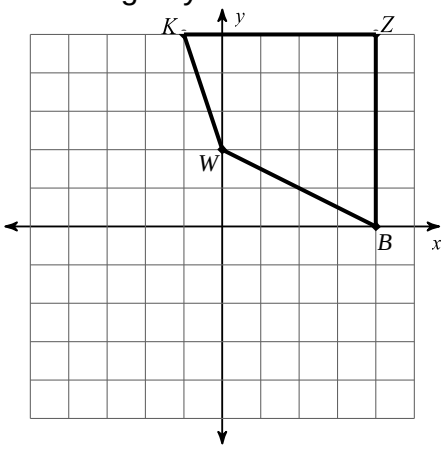
$E(-3,-5) \rightarrow E'$_____

$F(4,-1) \rightarrow F'$_____

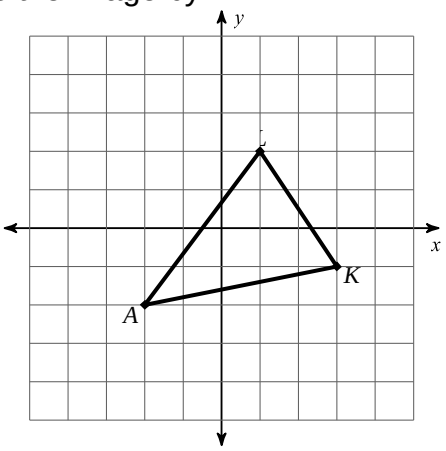
4. Dilate the image by k=2.



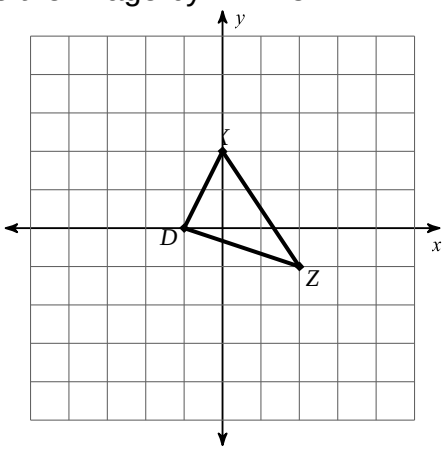
5. Dilate the image by k= 0.5



6. Dilate the image by k = 1

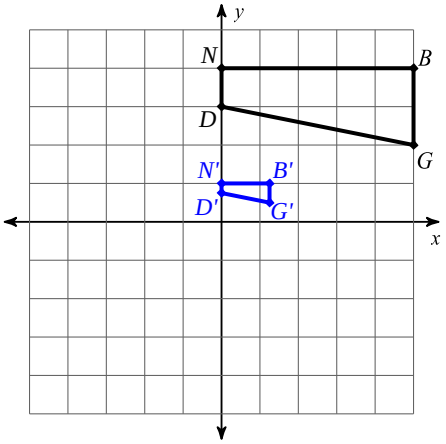


7. Dilate the image by k = 2.5

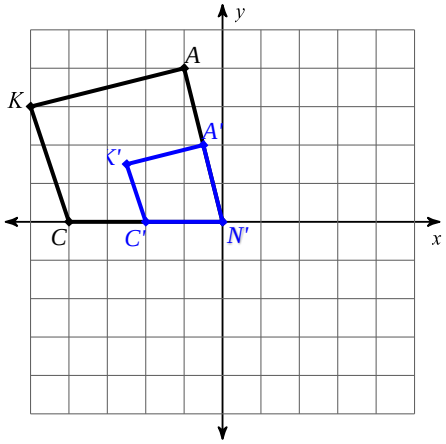


Find the scale factor of the dilation.

8.



9.



10. From A(–1, 0.5), B(–1, 1), C(1.5,0)
to
A'(–3, 1.5), B'(–3, 3), C'(4.5, 0)

11. From L(8, 8), M(–12, 0), N(–4, –4), P(8, 4)
to
L'(2, 2), M'(–3, 0), N'(–1, –1), P'(2, 1)