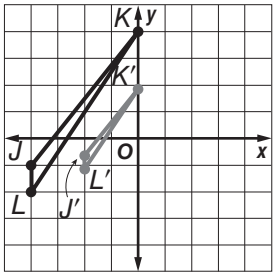
NAME _____ DATE _____ PERIOD _____

Lesson 4 Skills Practice

Dilations

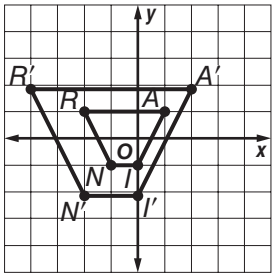
Find the coordinates of the vertices of each figure after a dilation with the given scale factor k. Then graph the original image and the dilation.

1. $J(-4, -1), K(0, 4), L(-4, -2); k = \frac{1}{2}$



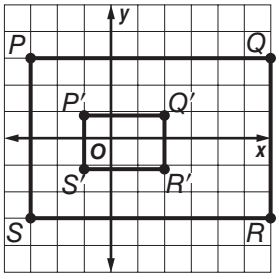
$J'\left(-2, -\frac{1}{2}\right)$, $K'(0, 2)$, $L'(-2, -1)$

2. $R(-2, 1), A(1, 1), I(0, -1), N(-1, -1); k = 2$



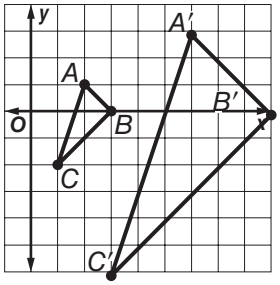
$R'(-4, 2)$, $A'(2, 2)$, $I'(0, -2)$, $N'(-2, -2)$

3. $P(-3, 3), Q(6, 3), R(6, -3), S(-3, -3); k = \frac{1}{3}$



$P'(-1, 1)$, $Q'(2, 1)$, $R'(2, -1)$, $S'(-1, -1)$

4. $A(2, 1), B(3, 0), C(1, -2); k = 3$



$A'(6, 3)$, $B'(9, 0)$, $C'(3, -6)$

5. PHOTOS Kiesha used a photo that measured 4 inches by 6 inches to make a copy that measured 8 inches by 12 inches. What is the scale factor of the dilation? **2**

6. MODELS David built a model of a regulation basketball court. His model measured approximately 3.75 feet long by 2 feet wide. The dimensions of a regulation court are 94 feet long by 50 feet wide. What is the scale factor David used to build his model? **$\frac{1}{25}$**

7. BLUEPRINTS On the blueprints of Mr. Wong's house, his great room measures 4.5 inches by 5 inches. The actual great room measures 18 feet by 20 feet. What is the scale factor of the dilation? **48**