9-5 **Practice**

Dilations

Draw the dilation image of each figure with center C and the given scale factor.

1.
$$r = \frac{3}{2}$$

 $C \bullet$



2.
$$r = \frac{2}{3}$$



 $\bullet C$

Find the measure of the dilation image $\overline{A'T'}$ or of the preimage \overline{AT} using the given scale factor.

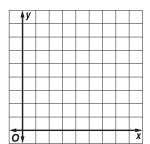
3.
$$AT = 15, r = \frac{3}{5}$$

4.
$$AT = 30, r = -\frac{1}{6}$$

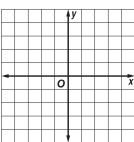
3.
$$AT = 15, r = \frac{3}{5}$$
 4. $AT = 30, r = -\frac{1}{6}$ **5.** $A'T' = 12, r = \frac{4}{3}$

COORDINATE GEOMETRY Find the image of each polygon, given the vertices, after a dilation centered at the origin with a scale factor of 2. Then graph a dilation centered at the origin with a scale factor of $\frac{1}{2}$.

6. A(1, 1), C(2, 3), D(4, 2), E(3, 1)

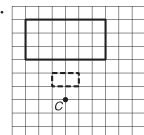


7. Q(-1, -1), R(0, 2), S(2, 1)

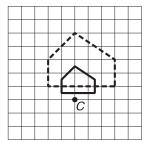


Determine the scale factor for each dilation with center C. Determine whether the dilation is an enlargement, reduction, or congruence transformation. The dotted figure is the dilation image.

8.



9.



10. PHOTOGRAPHY Estebe enlarged a 4-inch by 6-inch photograph by a factor of $\frac{5}{2}$. What are the new dimensions of the photograph?

Lesson 9-5