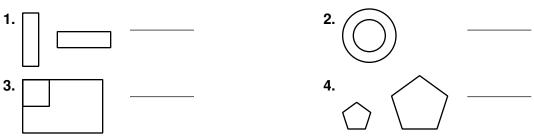
Practice B LESSON



Tell whether each transformation appears to be a dilation.



Draw the dilation of each figure under the given scale factor with center of dilation P.

5. scale factor: $\frac{1}{2}$

P•

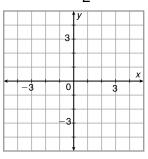


- 6. scale factor: -2
- 7. A sign painter creates a rectangular sign for Mom's Diner on his computer desktop. The desktop version is 12 inches by 4 inches. The actual sign will be 15 feet by 5 feet. If the capital *M* in "Mom's" will be 4 feet tall,

find the height of the *M* on his desktop version.

Draw the image of the figure with the given vertices under a dilation with the given scale factor centered at the origin.

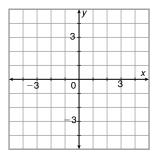
8. A(2, -2), B(2, 3), C(-3, 3), D(-3, -2);scale factor: $\frac{1}{2}$



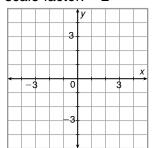
10. J(0, 2), K(-2, 1), L(0, -2), M(2, -1);scale factor: 2

	Í	y			
	3.				
	Ŭ				
					x
-3	0		3	3	
-3	0		3	3	
-3	0			3	
-3			3	3	

9. P(-4, 4), Q(-3, 1), R(2, 3);scale factor: -1



11. *D*(0, 0), *E*(-1, 0), *F*(-1, -1); scale factor: -2



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LESSON Practice A	LESSON Practice B
12-7 Dilations	12-7 Dilations
Fill in the blanks to complete the definition.	Tell whether each transformation appears to be a dilation.
1. A dilation, or <u>similarity</u> transformation, is a transformation in which	1. 🗌 no 2. 🦳 yes
the lines connecting every point <i>P</i> with its image <i>P'</i> all intersect at a point <i>C</i> , called the center of dilation <u>CP'</u> is the Same for every point <i>P</i>	
<u>center of dilation</u> . $\frac{CP'}{CP}$ is the <u>Same</u> for every point <i>P</i> .	
Tell whether each transformation appears to be a dilation.	
2 no 3 no	
	Draw the dilation of each figure under the given scale factor with center of dilation <i>P</i> .
	5. scale factor: $\frac{1}{2}$ 6. scale factor: -2
4. yes 5. yes	
	P•
Draw the dilation of each figure under the given scale factor with center of	7. A sign painter creates a rectangular sign for Mom's Diner on his computer
dilation <i>P</i> . To do this, draw a dashed line from each vertex to point <i>P</i> . Use a ruler to measure the distance from each vertex to point <i>P</i> and then plot the new vertex	desktop. The desktop version is 12 inches by 4 inches. The actual sign will be 15 feat by 5 feat
that same distance multiplied by the scale factor along the dashed line.	be 15 feet by 5 feet. If the capital <i>M</i> in "Mom's" will be 4 feet tall, <u>31</u> inches
6. scale factor: 2 7. scale factor: $\frac{1}{2}$	Draw the image of the figure with the given vertices under a dilation with the
	given scale factor centered at the origin. 8. $A(2, -2)$, $B(2, 3)$, $C(-3, 3)$, $D(-3, -2)$; 9. $P(-4, 4)$, $Q(-3, 1)$, $R(2, 3)$;
	scale factor: $\frac{1}{2}$ scale factor: -1
8. An engraver is designing a stamp to celebrate Asian American history. Her original	
version of the stamp is a rectangle 6 inches by 9 inches. When the stamp is produced, $\frac{1}{6}$	
it will be a rectangle 1 inch by $1\frac{1}{2}$ inches. Find the scale factor of the reduction. <u>6</u>	
Draw the image of the figure with the given vertices under a dilation with the	
given scale factor centered at the origin.	
 D(0, 2), E(0, 0), F(2, 1), G(3, 3); A(1, 3), B(3, 2), C(1, -2); scale factor: -1 	10. J(0, 2), K(-2, 1), L(0, -2), M(2, -1); 11. D(0, 0), E(-1, 0), F(-1, -1);
	scale factor: 2 scale factor: -2
G C ^{/3} A B	3 F
Copyright © by Holt, Rinehart and Winston. 51 Holt Geometry All rights reserved.	Copyright @ by Holt, Rinehart and Winston. 52 Holt Geometry All rights reserved.
12-7 Dilations	127 Dilations
	IP27A Dilations A dilation is a transformation that changes the size of a figure but not the shape.
 1. Jacob constructed this dilation of a triangle with center of dilation <i>P</i> and scale factor 2. Write a paragraph proof to prove that the construction produces a triangle similar to the original, but twice as large. 	127 Dilations
1227 Dilations 1. Jacob constructed this dilation of a triangle with center of dilation <i>P</i> and scale factor 2. Write a paragraph proof to prove that the construction produces a triangle similar to the original, but twice as large. Given: $PA = AA', PB = BB', PC = CC'$	IP27A Dilations A dilation is a transformation that changes the size of a figure but not the shape.
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