Name: _____ Class: _____ Date: _____ ID: A

Chapter 2 Review

Multiple Choice
Identify the choice that best completes the statement or answers the question.

The polygons are similar. Find x.

____ 1.

a. 17
b. 9
c. 19
d. 18

____ 2. Which description is the correct way to solve the equation below?

$7x - 3 = -31$

a. Add 3 to both sides then divide both sides by 7.
b. Subtract 3 from both sides then divide both sides by 7.
c. Add 3 to both sides then multiply both sides by 7.
d. Subtract 3 from both sides then multiply both sides by 7.

Name the word that matches the definition given.

____ 3. Figures that have the same size and the same shape

a. congruent figures
b. corresponding angles
c. corresponding sides
d. transformation
e. image
f. translation

____ 4. Matching angles of two congruent figures

a. congruent figures
b. corresponding angles
c. corresponding sides
d. transformation
e. image
f. translation

____ 5. Matching sides of two congruent figures

a. congruent figures
b. corresponding angles
c. corresponding sides
d. transformation
e. image
f. translation

____ 6. A transformation in which a figure slides but does not turn; Every point of the figure moves the same distance and in the same direction.

a. congruent figures
b. corresponding angles
c. corresponding sides
d. transformation
e. image
f. translation

____ 7. A ____ changes a figure into another figure.
a. congruent figures
b. corresponding angles
c. corresponding sides
d. transformation
e. image
f. translation

____ 8. The new figure formed by a transformation
a. congruent figures
b. corresponding angles
c. corresponding sides
d. transformation
e. image
f. translation

____ 9. A ____ creates a mirror image of the original figure
a. reflection
b. line of reflection
c. rotation
d. transformation
e. image
f. translation

____ 10. A line that a figure is reflected in to create a mirror image of the original figure
a. reflection
b. line of reflection
c. rotation
d. transformation
e. image
f. translation

____ 11. A point about which a figure is rotated.
a. center of rotation
b. angle of rotation
c. similar figures
d. dilation
e. center of dilation
f. scale factor

____ 12. The number of degrees a figure rotates.
a. center of rotation
b. angle of rotation
c. similar figures
d. dilation
e. center of dilation
f. scale factor

____ 13. A transformation in which a figure is rotated about a point called the center of rotation.
a. reflection
b. line of reflection
c. rotation
d. transformation
e. image
f. translation

____ 14. Figures that have the same shape but not necessarily the same size.
a. center of rotation
b. angle of rotation
c. similar figures
d. congruent figures
e. center of dilation
f. scale factor

____ 15. The ratio of the side lengths of the image of a dilation to the corresponding side lengths of the original figure.
a. center of rotation
b. angle of rotation
c. similar figures
d. dilation
e. center of dilation
f. scale factor

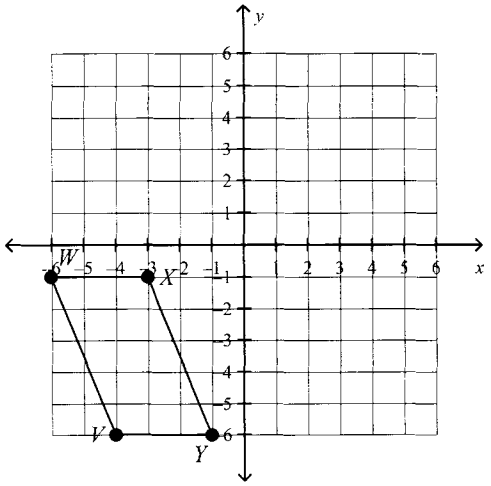
____ 16. A transformation in which a figure is made larger or smaller with respect to a fixed point called the center of dilation.
a. center of rotation
b. angle of rotation
c. similar figures
d. dilation
e. center of dilation
f. scale factor

____ 17. A point with respect to which a figure is dilated.

a. center of rotation
b. angle of rotation
c. similar figures
d. dilation
e. center of dilation
f. scale factor

Find the coordinates of the image after the transformation.

____ 18. Rotate 270° counterclockwise about the origin.



a. $V'(4, 6)$, $W'(6, 1)$, $X'(3, 1)$, $Y'(1, 6)$
b. $V'(6, -4)$, $W'(1, -6)$, $X'(1, -3)$, $Y'(6, -1)$
c. $V'(-6, 4)$, $W'(-1, 6)$, $X'(-1, 3)$, $Y'(-6, 1)$
d. $V'(6, 4)$, $W'(1, 6)$, $X'(1, 3)$, $Y'(6, 1)$

A figure lies entirely in Quadrant II. In which quadrant will the figure lie after the given clockwise rotation about the origin?

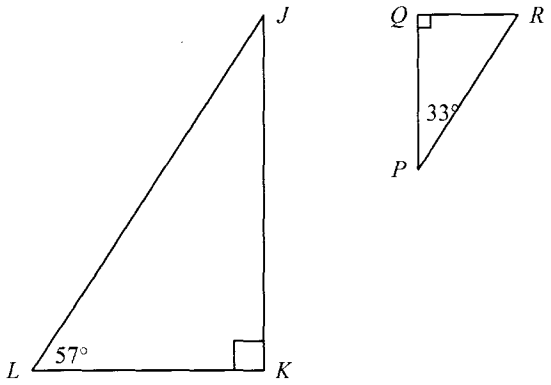
____ 19. 180°

a. Quadrant III
b. Quadrant II
c. Quadrant I
d. Quadrant IV

____ 20. 360°

a. Quadrant III
b. Quadrant I
c. Quadrant IV
d. Quadrant II

The two triangles are similar. Find the measure of the angle.



____ 21. $\angle R$

a. 180°
b. 90°
c. 33°
d. 57°

____ 22. The coordinates below represent the dimensions of a room on a building blueprint. To make the room fit the needs of the owner, the builder needs to make changes. Reflect in the x-axis. Then dilate with respect to the origin using a scale factor of $\frac{1}{2}$.

$A(-5,-5), B(-5,0), C(1,0), D(1,-5)$

a. $A''(-4.5,5.5), B''(-4.5,5.5), C''(1.5,0.5), D''(1.5,5.5)$
b. $A''(5.5,-4.5), B''(5.5,0.5), C''(-0.5,0.5), D''(-0.5,-4.5)$
c. $A''(-2.5,2.5), B''(-2.5,0), C''(0.5,0), D''(0.5,2.5)$
d. $A''(2.5,-2.5), B''(2.5,0), C''(-0.5,0), D''(-0.5,-2.5)$

Numeric Response

1. The ratio of the corresponding side lengths of two similar MP3 players is 4 : 3. The area of the larger MP3 player is 8 square inches. What is the area of the smaller MP3 player?

2. The ratio of the side length of Square A to the side length of Square B is 3 : 5. The perimeter of Square B is 60 feet. What is the area of Square A?

3. The ratio of the side length of Square A to the side length of Square B is 11:9. The side length of Square A is 11 centimeters. What is the perimeter of Square B?

4. The ratio of the corresponding side lengths of two similar city blocks is 17:11. The perimeter of the larger block is 0.85 mile. What is the perimeter of the smaller block?

Chapter 2 Review
Answer Section

MULTIPLE CHOICE

1. D
2. A
3. A
4. B
5. C
6. F
7. D
8. E
9. A
10. B
11. A
12. B
13. C
14. C
15. F
16. D
17. E
18. C
19. D
20. D
21. D
22. C

NUMERIC RESPONSE

1. 4.5 in^2
2. 81 ft^2
3. 36 cm
4. 0.55 mile