

Geometry and Measurement
Pre-Test

Choose the best answer for the following questions or statements.

1. **What triangle has no sides or angles congruent?**
 - a. Acute triangle
 - b. Scalene triangle
 - c. Isosceles triangle
 - d. Equilateral triangle
 - e. none of the above

2. **This triangle has at least two sides congruent.**
 - a. Acute triangle
 - b. Scalene triangle
 - c. Isosceles triangle
 - d. Equilateral triangle
 - e. none of the above

3. **The following triangle has all sides and angles congruent.**
 - a. Acute triangle
 - b. Scalene triangle
 - c. Isosceles triangle
 - d. Equilateral triangle
 - e. none of the above

4. **A triangle that has all acute angles is called a(n) _____.**
 - a. Acute triangle
 - b. Scalene triangle
 - c. Isosceles triangle
 - d. Equilateral triangle
 - e. Obtuse triangle

5. **A triangle that has one obtuse angle is called a(n) _____.**
 - a. Acute triangle
 - b. Scalene triangle
 - c. Isosceles triangle
 - d. Equilateral triangle
 - e. Obtuse triangle

- 6. I am a quadrilateral with opposite sides congruent; all angles are right and opposite sides are parallel.**
- a. rectangle
 - b. square
 - c. parallelogram
 - d. rhombus
 - e. none of the above
- 7. I am a quadrilateral with all sides congruent; all angles are right and opposite sides are parallel.**
- a. rectangle
 - b. square
 - c. parallelogram
 - d. rhombus
 - e. none of the above
- 8. A quadrilateral that has opposite sides congruent, opposite sides parallel, and opposite angles are congruent is called:**
- a. Rectangle
 - b. Square
 - c. Parallelogram
 - d. Rhombus
 - e. None of the above
- 9. A quadrilateral that has all sides congruent, opposite sides are parallel, and opposite angles are congruent.**
- a. rectangle
 - b. square
 - c. parallelogram
 - d. rhombus
 - e. none of the above
- 10. A polygon that has three sides is called a(n):**
- a. triangle
 - b. quadrilateral
 - c. pentagon
 - d. hexagon
 - e. heptagon
- 11. A polygon that has four sides is called a(n):**
- a. triangle
 - b. quadrilateral
 - c. pentagon
 - d. hexagon
 - e. heptagon

12. A polygon that has five sides is called a(n):

- a. quadrilateral
- b. pentagon
- c. hexagon
- d. heptagon
- e. octagon

13. A polygon that has six sides is called a(n):

- a. quadrilateral
- b. pentagon
- c. hexagon
- d. heptagon
- e. octagon

14. A polygon with seven sides is called a(n):

- a. quadrilateral
- b. pentagon
- c. hexagon
- d. heptagon
- e. octagon

15. A polygon with eight sides is called a(n):

- a. quadrilateral
- b. pentagon
- c. hexagon
- d. heptagon
- e. octagon

16. A _____ is a simple, closed, two-dimensional figure formed by three or more sides.

- a. shape
- b. polygon
- c. regular polygon
- d. cone
- e. none of the above

17. A _____ is a simple, closed, two-dimensional figure that all sides and all angles are congruent.

- a. shape
- b. polygon
- c. regular polygon
- d. special polygon
- e. none of the above

18. The movement of a figure is called a(n):

- a. form
- b. transformation
- c. horizontal
- d. vertical
- e. none of the above

19. The type of transformation that slides a figure is called:

- a. horizontal
- b. vertical
- c. translation
- d. reflection
- e. rotation

20. The type of transformation that flips a figure is called:

- a. horizontal
- b. vertical
- c. translation
- d. reflection
- e. rotation

21. The type of transformation that turns a figure is called:

- a. horizontal
- b. vertical
- c. translation
- d. reflection
- e. rotation

22. When two halves of a figure matches, the figure is said to have

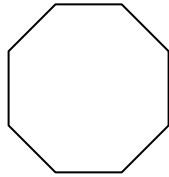
- _____.
- a. rotational symmetry
 - b. horizontal symmetry
 - c. vertical symmetry
 - d. line symmetry
 - e. reflection symmetry

23. The line that separates figures into two matching halves is called:

- a. rotational symmetry
- b. horizontal symmetry
- c. vertical symmetry
- d. line of symmetry
- e. reflection of symmetry

24. Do the following have rotational symmetry?

- a. yes
- b. no



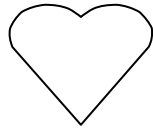
25.

- a. yes
- b. no



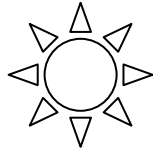
26.

- a. yes
- b. no



27.

- a. yes
- b. no



Find the best answer for the following word problems.

28. James has a right triangle that has another angle that measures 45° . What is the missing angle measurement?

- a. 45°
- b. 90°
- c. 150°
- d. 180°
- e. None of the above

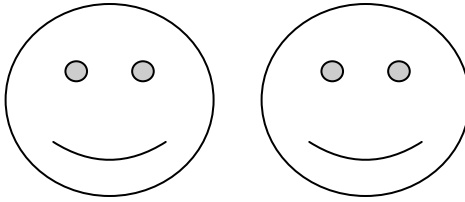
29. Tabitha has an equilateral triangle. One of the angles is equal to 60° . What is the measurement of the other two angles?

- a. $30^\circ; 30^\circ$
- b. $60^\circ; 60^\circ$
- c. $75^\circ; 75^\circ$
- d. $100^\circ; 100^\circ$

Congruent or Similar?

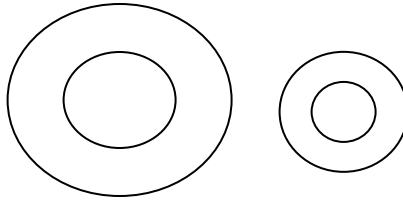
32.

- a. congruent
- b. similar



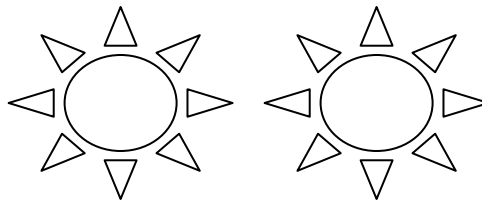
33.

- a. congruent
- b. similar



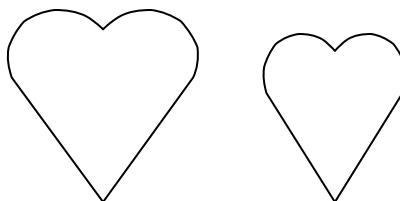
34.

- a. congruent
- b. similar



35.

- a. congruent
- b. similar



Find the area of the following circles to the nearest tenth.

36. A circle that has a radius of 4ft.

- a. 8ft.
- b. 16ft.
- c. 50.2 ft.
- d. 100.4 ft.

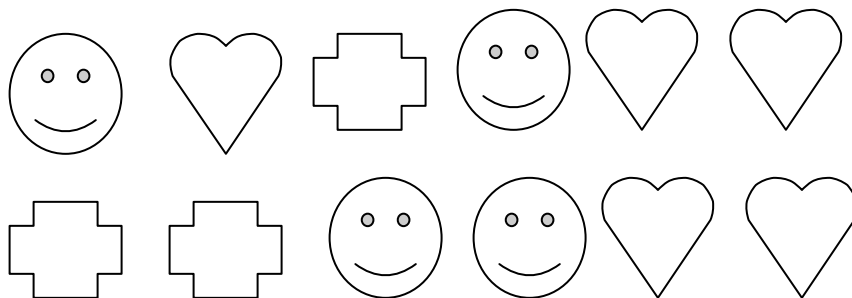
37. A circle that has a circumference of 6.4 ft.

- a. 6.4 ft.
- b. 12.8 ft.
- c. 32.2 ft.
- d. 64.4 ft.

38. A circle that has a radius of 8 cm.

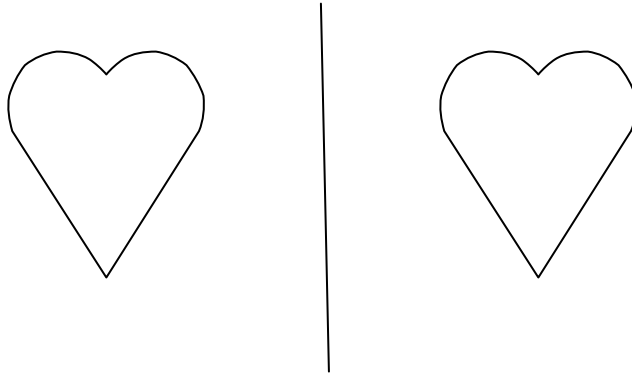
- a. 8 cm.
- b. 16 cm.
- c. 201 cm.
- d. 402 cm.

39. What is the ratio of the number of faces to the total number of figures below?



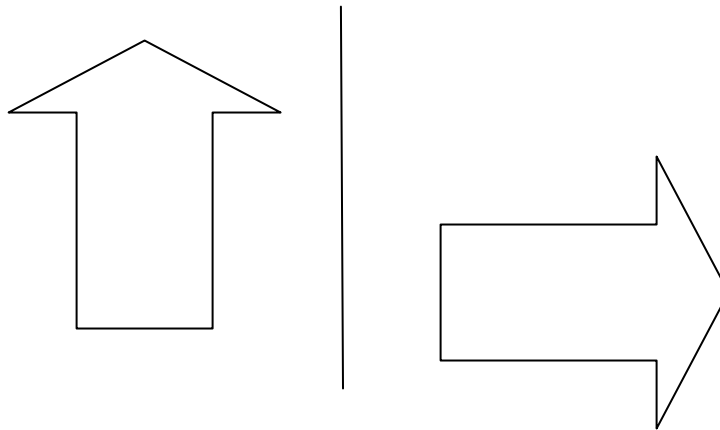
- a. $\frac{1}{3}$
- b. $\frac{4}{6}$
- c. $\frac{1}{2}$
- d. $\frac{3}{4}$
- e. None of the above

40. What type of transformation is represented in the following picture?



- a. Vertical reflection
- b. Horizontal rotation
- c. Vertical translation
- d. Horizontal translation
- e. None of the above

41. What type of transformation is represented in the following picture?



- a. Vertical translation
- b. Horizontal reflection
- c. Vertical reflection
- d. Vertical rotation
- e. Horizontal rotation



SPI 6.4.1 Identify, define or describe geometric shapes given a visual representation or a written description of its properties.

SPI 6.4.2 Find a missing angle measure in problems involving interior/exterior angles and/or their sums

SPI 6.4.4 Calculate with circumferences and areas of circles

SPI 6.4.5 Define the surface area and volume of prisms, pyramids and cylinders.