

TEST NAME: 8.G.6,7,8,9 Review
TEST ID: 1033769
GRADE: 08 - Eighth Grade
SUBJECT: Mathematics
TEST CATEGORY: Shared Classroom Assessments

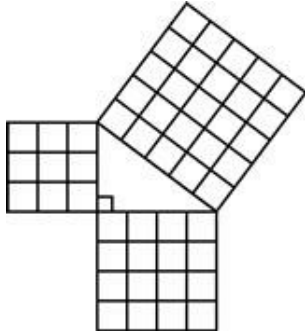
04/21/16, 8.G.6,7,8,9 Review

Student: _____

Class: _____

Date: _____

1. A right triangle is formed by squares made up of identical square blocks as shown.



Which statement best describes what the figure shows?

- A. Three plus four equals five.
 - B. Three plus four equals five squared.
 - C. Three squared plus four squared equals five.
 - D. Three squared plus four squared equals five squared.
2. Which statement **best** explains how to use the side measures of a triangle to show that a triangle is a right triangle?
- A. Find the sum of the squares of the lengths of the legs and see if it equals the length of the hypotenuse squared.
 - B. Find the square root of the length of the hypotenuse and see if it equals the sum of the lengths of the legs.
 - C. Find the square of the length of the hypotenuse and see if it equals the sum of the lengths of the legs.
 - D. Find the average of the lengths of the two legs and see if it equals the length of the hypotenuse.

3. A hot air balloon is tied to the ground by a 200-yd rope as shown in the picture below.



The balloon is floating 20 yds west of where the rope is tied to the ground. **About** how high in the air is the hot air balloon?

- A. 180 yds
 - B. 199 yds
 - C. 201 yds
 - D. 220 yds
4. The length of a football field is 360 feet and the width is 160 feet. What is the **approximate** length of the diagonal of the football field?
- A. 260 feet
 - B. 322 feet
 - C. 394 feet
 - D. 416 feet

5. A 90-foot wire runs from the top of a cell phone tower to the ground 63 feet from the base of the tower. **Approximately** how tall is the cell phone tower?
- A. 27 feet
 - B. 64 feet
 - C. 77 feet
 - D. 110 feet
6. The width of a rectangular swimming pool is 16 ft. The diagonal of the swimming pool is 34 ft. What is the length of the swimming pool?
- A. 22 ft
 - B. 25 ft
 - C. 30 ft
 - D. 38 ft
7. Linda bought a rectangular-shaped table.
- The top of the table has a width of 56 inches.
 - The diagonal of the top of the table was 64 inches.

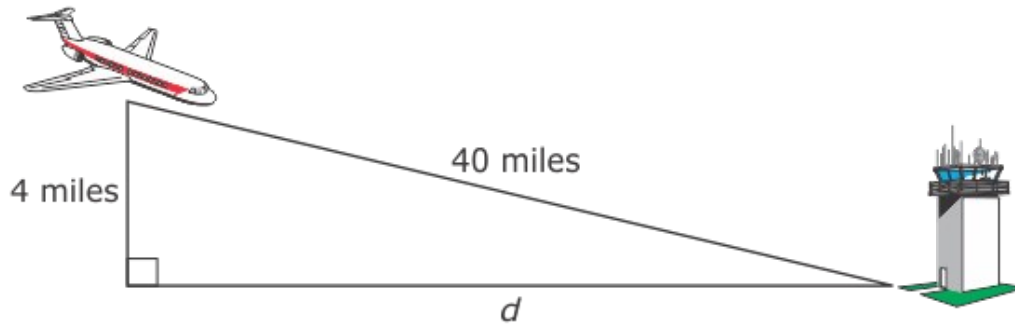
What is the **approximate** area of the top of the table?

- A. 1,736 square inches
 - B. 1,984 square inches
 - C. 3,584 square inches
 - D. 4,762 square inches
8. Walltown is 25 miles east of Park City.
- Park City is 38 miles south of Edenton.
 - Michael drove from Edenton to Park City, and then to Walltown.
 - Leah drove straight from Edenton to Walltown.

About how much farther did Michael drive than Leah?

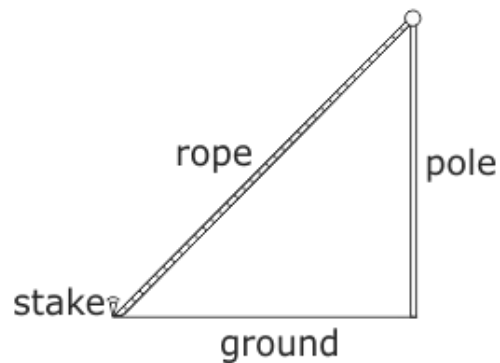
- A. 17.5 miles
- B. 25 miles
- C. 34 miles
- D. 45.5 miles

9. In the picture below, an airplane is 40 miles (air distance) from the airport and is at an elevation of 4 miles.



What is the **approximate** ground distance (d) the airplane is from the airport?

- A. 20.4 mi
 - B. 36.0 mi
 - C. 39.8 mi
 - D. 44.0 mi
10. A rope 10 feet long is tied to the top of an 8-foot pole.



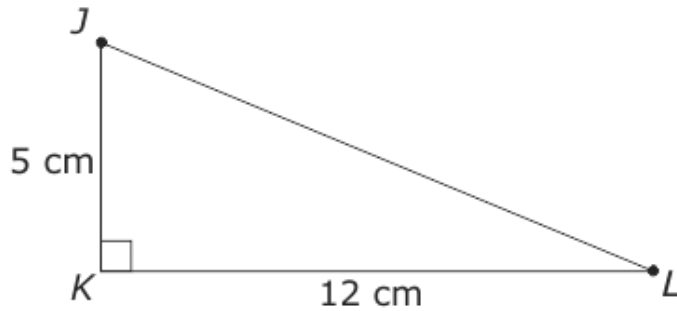
If the rope is pulled tightly, how far from the bottom of the pole should the rope be staked to the ground?

- A. 2 feet
- B. 6 feet
- C. 9 feet
- D. 13 feet

11. Which set of measurements could be the side lengths of a right triangle?

- A. {10 cm, 12 cm, 16 cm}
- B. {20 cm, 21 cm, 29 cm}
- C. {30 cm, 32 cm, 42 cm}
- D. {40 cm, 42 cm, 56 cm}

12. What is the perimeter of $\triangle JKL$ below?

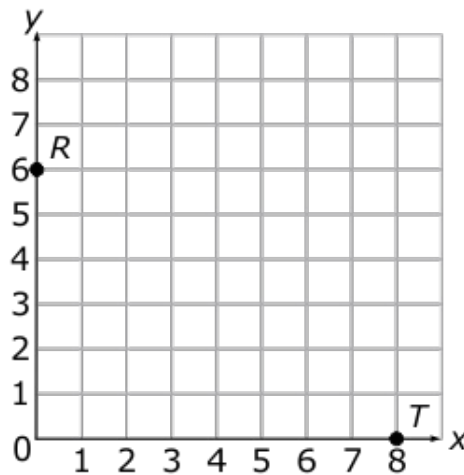


- A. 28 cm
- B. 30 cm
- C. 34 cm
- D. 36 cm

13. Triangle RST has vertices $R(-1, 2)$, $S(5, 0)$, and $T(-3, -2)$. What is the **approximate** length of line segment ST ?

- A. 8.2 units
- B. 7.4 units
- C. 6.3 units
- D. 5.7 units

14. Square $PQRS$ has the vertices $P(-3, 3)$, $Q(3, 3)$, $R(3, -3)$, and $S(-3, -3)$. What is the **approximate** length of diagonal QS ?
- A. 6.0 units
 - B. 8.5 units
 - C. 10.5 units
 - D. 12.0 units
15. Triangle FGH has vertices $F(1, -5)$, $G(6, 0)$, and $H(1, 0)$. What is the **approximate** perimeter of this triangle?
- A. 13.2 units
 - B. 17.1 units
 - C. 19.3 units
 - D. 23.5 units
16. What is the distance between point R and point T ?



- A. 9 units
- B. 10 units
- C. 12 units
- D. 14 units

17. Point R is located at $(-3, 3)$, and point T is located at $(1, -2)$. What is the **approximate** distance between point R and point T ?
- A. 5.7 units
B. 6.4 units
C. 9.0 units
D. 41.0 units
18. On a map, a city is located at $(2, 9)$ while another city is located at $(-2, -4)$. If 1 unit is equal to 10 miles, **approximately** how many miles apart are these two cities?
- A. 6 miles
B. 12 miles
C. 136 miles
D. 550 miles
19. A company makes a cone-shaped container with a height of 15 in. The area of its base is about 78.8 in.^2 . **Approximately** what is the volume of the container?
- A. $3,546 \text{ in.}^3$
B. $1,182 \text{ in.}^3$
C. 394 in.^3
D. 94 in.^3
20. Joel drew two cones on a piece of paper.
- The larger cone has a diameter of 8 inches and a height of 12 inches.
 - The smaller cone has a radius and height equal to $\frac{1}{4}$ the size of the larger cone.

What is the **approximate** volume of the smaller cone?

- A. 3 in.^3
B. 13 in.^3
C. 50 in.^3
D. 201 in.^3

21. An ice cream cone has a radius of 2 inches and a height of 6 inches. How much ice cream can fit inside the cone?

- A. 4 in.^3
- B. 6 in.^3
- C. 25 in.^3
- D. 101 in.^3

22. The students in a kindergarten class are filling sphere-shaped ornaments with glitter.

- There are 20 students in the class, and they are each making one ornament.
- Each ornament has a diameter of 3 inches.

About how much glitter is needed to fill all the ornaments?

- A. $2,262 \text{ in.}^3$
- B. 283 in.^3
- C. 251 in.^3
- D. 188 in.^3

23. Mrs. Thomas is preparing lunch for a group of students.

- A can of juice has a radius of 4 cm and height of 11 cm.
- Mrs. Thomas knows she needs at least $5,100 \text{ cm}^3$ of juice.

How many cans of juice will Mrs. Thomas need to buy?

- A. 8
- B. 9
- C. 10
- D. 11

24. For a science project, Angela constructed a cone to use as a mountain. The cone has a diameter of 10 in. and a height of 15 in. What is the **approximate** volume of the cone?

- A. 150 in.^3
- B. 236 in.^3
- C. 393 in.^3
- D. 471 in.^3

25. Mrs. Glickman is making a two-layer cake. Each layer is shaped like a cylinder.
- The bottom layer of the cake has a diameter of 12 in. and a height of 5 in.
 - The top layer of the cake has a diameter of 8 in. and a height of 3 in.

What is the **approximate** volume of the cake?

- A. 132 in.^3
- B. 264 in.^3
- C. 716 in.^3
- D. $2,864 \text{ in.}^3$