

TEST NAME: Area and Circumference Problems CW #1
TEST ID: 2930925
GRADE: 07 - Seventh Grade
SUBJECT: Mathematics
TEST CATEGORY: School Assessment

03/04/19, Area and Circumference Problems CW #1

Student: _____

Class: _____

Date: _____

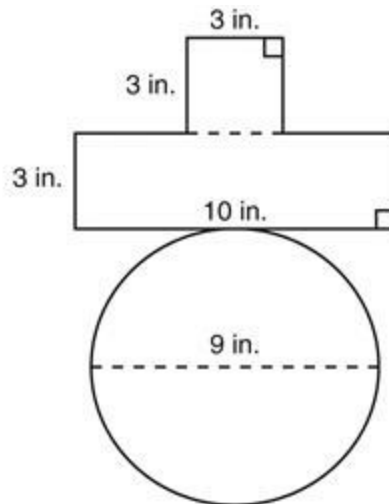
1. Mrs. Lubek exercises her horse by walking him around a circular track. The distance from the edge of the track to the center of the circle is 150 ft. If Mrs. Lubek walks her horse 4 times around the track, approximately how many feet will she and the horse travel? (Use $\pi = 3.14$.)
 - A. 471 ft
 - B. 942 ft
 - C. 1884 ft
 - D. 3768 ft
2. A length of garden hose is coiled to make three circular loops each with a diameter of 2 feet.



What is the approximate total length of the hose in feet?

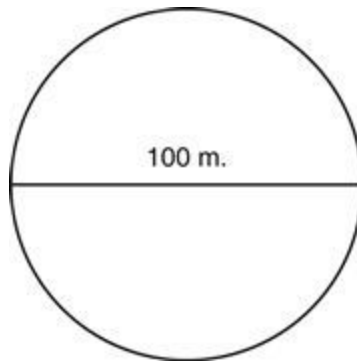
- A. 6
- B. 12
- C. 18
- D. 36

3. What is the approximate total area, in square inches, of the figure below? Use 3.14 for π .



Note: The figure is not drawn to scale.

- A. 60.3
B. 67.3
C. 95.6
D. 102.6
4. An athlete runs around a circular track which has a diameter of 100 meters.



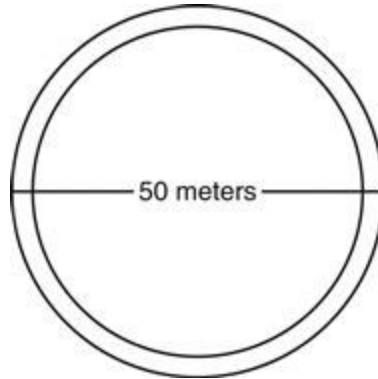
How far does the athlete travel with each lap around the track?

- A. 314 meters
B. 7850 meters
C. 314 square meters
D. 7850 square meters

5. Which of the following is true for a circle with a circumference of approximately 100 feet?

- A. The diameter is 16 feet and the area is 804 square feet.
- B. The radius is 16 feet and the area is 804 square feet.
- C. The diameter is 16 feet and the area is 804 feet.
- D. The radius is 16 feet and the area is 804 feet.

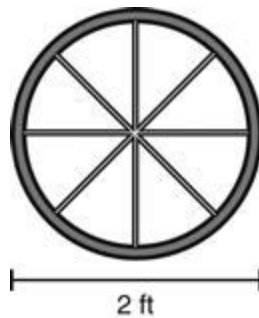
6. An athlete ran 10 times around the circular track shown below.



Approximately how many meters did the athlete run?

- A. 500
- B. 1570
- C. 1963
- D. 7850

7. Joe has a bicycle with a front wheel that is 2 feet in diameter.

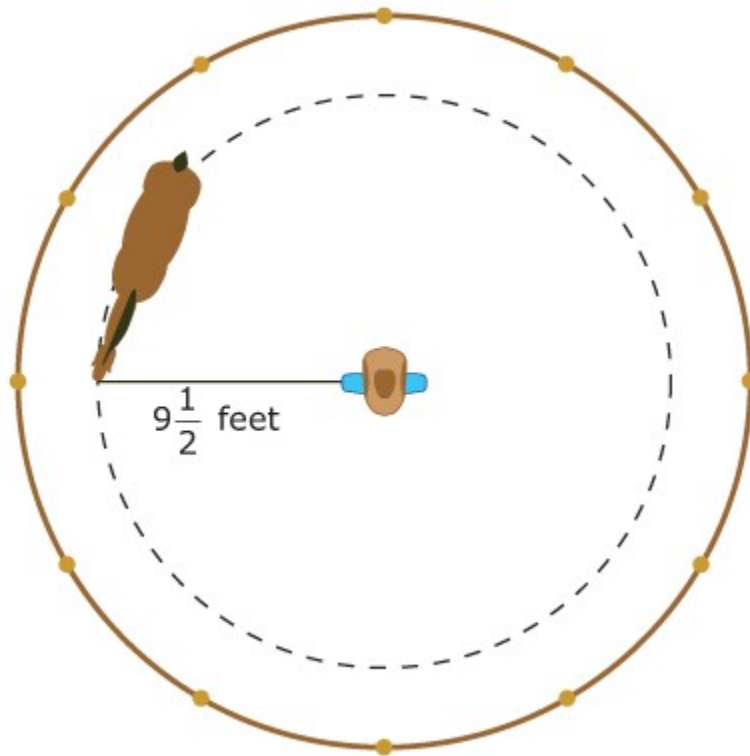


How far does Joe travel if his wheel turns exactly 100 complete revolutions in one direction?

Use 3.14 for π .

- A. 314 feet
- B. 628 feet
- C. 1256 feet
- D. 6280 feet

8. A man holds a rope that leads a horse. The horse walks in a circular path as shown by the dashed line, and the man stands in the center. The length of the rope from the man to the horse is $9\frac{1}{2}$ feet. How far does the horse walk in one trip around the path?



- A. 30 feet
- B. 60 feet
- C. 119 feet
- D. 283 feet

9. Jack cut out two fabric circles of different sizes in his art class. The larger circle has a circumference of 22 inches, and the smaller circle has a circumference of 14 inches. What is the total area, to the nearest hundredth of a square inch, of the two circles? (Use $\pi = 3.14$.)
- A. 54.14 square inches
 - B. 29.89 square inches
 - C. 11.47 square inches
 - D. 5.73 square inches
10. Paige wants to sew lace around the edge of a round tablecloth. The tablecloth has a diameter of 6 feet. **About** how much lace will Paige need?
- A. 9 feet
 - B. 19 feet
 - C. 28 feet
 - D. 38 feet
11. A round table has a radius of 15 in. A round tablecloth hangs 2 in. over the edge of the entire table. What is the **approximate** area of the tablecloth?
- A. 107 in.²
 - B. 707 in.²
 - C. 908 in.²
 - D. 1,134 in.²

12. The diameter of a tractor's wheel is 4 ft. **Approximately** how many complete turns will the wheel make if it travels 64 ft?
- A. 4
 - B. 5
 - C. 10
 - D. 16
13. Megan wants to put a ribbon around the bottom of a vase. The bottom of the vase is shaped like a circle with a radius of 4.5 cm. Which is the minimum amount of ribbon Megan needs for the bottom of the vase?
- A. 9 cm
 - B. 15 cm
 - C. 20 cm
 - D. 29 cm
14. A bicycle has a tire with a 20-inch diameter. Another bicycle has a tire with a 26-inch diameter. **About** how much farther will the larger tire roll in one revolution compared to one revolution of the smaller tire?
- A. 6 inches
 - B. 9 inches
 - C. 12 inches
 - D. 19 inches
15. A spinner travels around in a circle. The radius of the spinner is 3 inches. Mike spins the spinner and it travels completely around the circle 5 times. **About** how far did the tip of the spinner travel?
- A. 15 inches
 - B. 30 inches
 - C. 95 inches
 - D. 140 inches

16. Latisha swims in a circular swimming pool at a local park. The circumference of the pool is 80 ft. For exercise, she swims across the center of the pool and back 20 times each day. **About** how far does she swim each day?
- A. 510 ft
 - B. 1,020 ft
 - C. 1,600 ft
 - D. 3,200 ft
17. Laura is building a fence around her pond. The pond has a diameter of 5 ft. Which is the minimum amount of fence Laura will need?
- A. 8 ft
 - B. 16 ft
 - C. 20 ft
 - D. 25 ft
18. Michael drove a small car 15 laps around a circular track. The radius of the track is 44 ft. What is the **approximate** distance Michael's car traveled?
- A. 700 ft
 - B. 1,300 ft
 - C. 2,100 ft
 - D. 4,100 ft