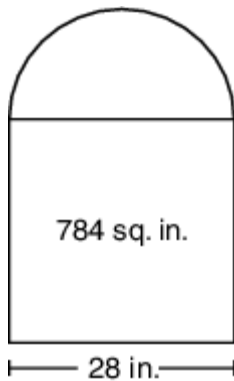**1.** What is the ratio of the circumference of a circle to the diameter called?

A   pi   **B**   area   **C**   chord   **D**   radius

2. Joe made a model of a door out of a piece of cardboard. The amount of cardboard used for the square, bottom portion of the model is shown in the diagram below.
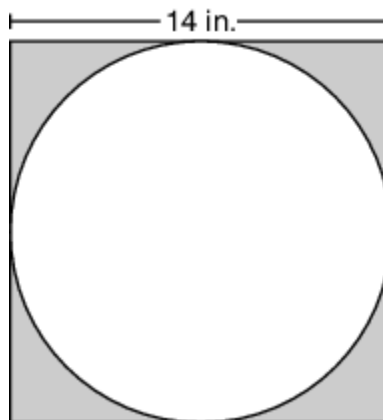
Approximately how much cardboard did he use in all to make the model?

784 sq. in.

28 in.

A   828 square inches
B   1,092 square inches
C   1.400 square inches
D   2,016 square inches

3. What is the area of a circle with a circumference of 56.52 inches? Use 3.14 for π.

A   177.47 in.^{2} **C**   508.68 in.^{2}

B   254.34 in.^{2} **D**   1,017.36 in.^{2}

4. Tricia made a circular mat from a square piece of cloth.
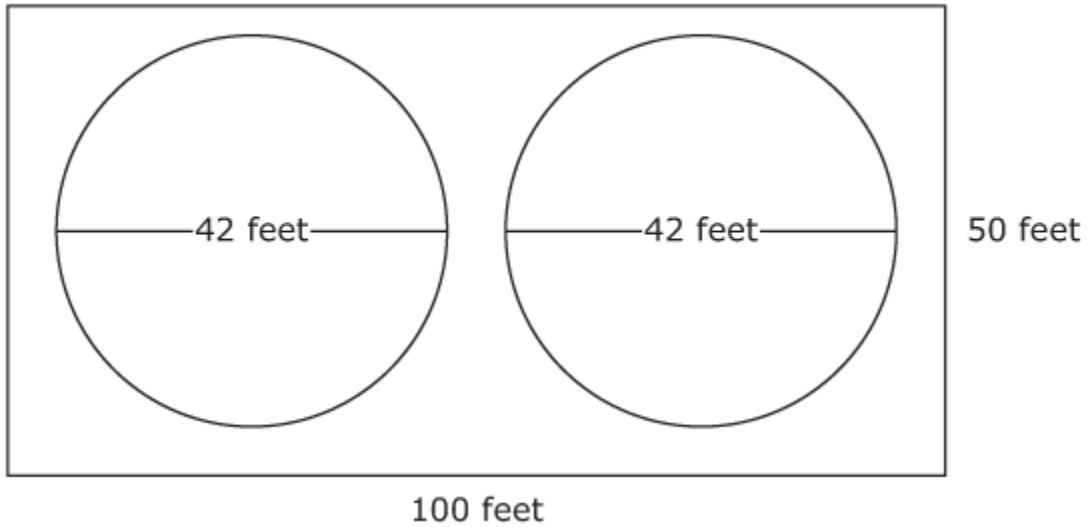
14 in.

Which is closest to the circumference, in inches, of the circular mat?

A   44 inches   **B**   88 inches   **C**   154 inches   **D**   616 inches

5. A circus rents a rectangular building that has floor dimensions of 50 by 100 feet. The building can fit 2 circus rings shaped like circles, each with a diameter of 42 feet.

Building with Circus Rings

To the nearest square foot, how many square feet of the floor are not taken up by the 2 circus rings? Use 3.14 for π.

A 2,231   **B** 2,769   **C** 3,615   **D** 4,736

6. A circle has an area of approximately 615 square millimeters. What is the diameter of the circle to the nearest millimeter? ($\pi \approx 3.14$)

A 196   **B** 98   **C** 28   **D** 14

7. Which expression should be used to determine the circumference of the base in the cylinder below?
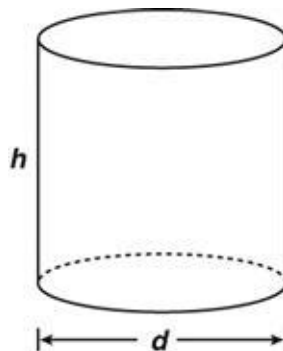
A πd **B** πh **C** πd^2 **D** πh^2

8. Which ratio represents the value of π?

A $\dfrac{diameter}{radius}$

C $\dfrac{circumference}{radius}$

B $\dfrac{circumference}{diamter}$

D $\dfrac{area}{diameter}$

9. Tom has a circular clock with a circumference of 39.88 inches. What is the radius of Tom's clock, to the nearest hundredth of an inch? (π ≈ 3.14)

A   25.40 in   **B**   12.70 in   **C**   6.35 in   **D**   3.56 in

10. A floor in Phillip's house is rectangular and measures 12 feet by 14 feet. He wants to put a circular rug on the floor. Which is closest to the area of the largest circular rug he can use? Use 3.14 for π.
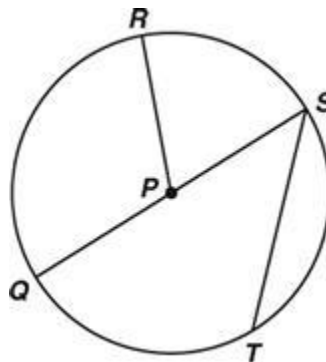
A   113 ft²   **B**   154 ft²   **C**   452 ft²   **D**   615 ft²

11. The length of what line segment would be multiplied by π to find the circumference of Circle *P*?

A $\overline{PR}$ **B** $\overline{ST}$ **C** $\overline{PQ}$ **D** $\overline{QS}$

12. 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 π ≈ 3.14).

A   54.14 in²   **B**   29.89 in²   **C**   11.47 in²   **D**   5.73 in²