

Test, Form 1A

Write the letter for the correct answer in the blank at the right of each question.

For Exercises 1-4, find the volume of each solid. Round to the nearest tenth if necessary.

1. **A.** $4,188.8 \text{ in}^3$
B. $3,141.6 \text{ in}^3$

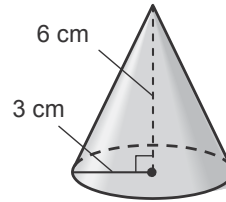
- C.** 418.8 in^3
D. 314.2 in^3

NEW ART: MS12.
 Sphere with fill.
 Show radius, label radius '10 in.'

1. _____

2. **F.** 37.7 cm^3
G. 56.5 cm^3

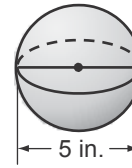
- H.** 113 cm^3
I. 169.9 cm^3



2. _____

3. **A.** 49.1 in^3
B. 65.4 in^3

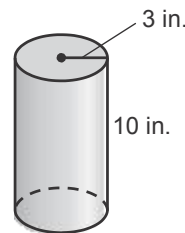
- C.** 196.3 in^3
D. 200 in^3



3. _____

4. **F.** 94.2 in^3
G. 188.4 in^3

- H.** 282.7 in^3
I. $1,130.4 \text{ in}^3$

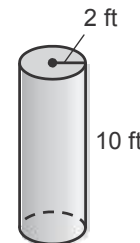


4. _____

5. What is the surface area of the cylinder? Round to the nearest tenth.

- A.** 62.8 cm^2
B. 113.0 cm^2

- C.** 150.8 cm^2
D. 251.2 cm^2



5. _____

6. What is the surface area of a cone with a radius of 3 meters and a slant height of 4 meters? Round to the nearest tenth.

- F.** 66.0 m^2
G. 113.0 m^2

- H.** 226.0 m^2
I. 263.8 m^2

6. _____

Test, Form 1A *(continued)*

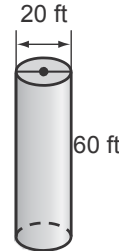
7. A can of juice is 6 inches high, and its base has a diameter of 4 inches. What is the volume of the can? Round to the nearest tenth.

- A. 37.7 in^3 B. 75.4 in^3 C. 150.7 in^3 D. 301.4 in^3

7. _____

8. The storage tank shown at the right is to be painted. What is the area of the surface to be painted? Assume that the bottom does not need painting. Round to the nearest whole number.

- F. $7,536 \text{ ft}^2$ H. $4,084 \text{ ft}^2$
 G. $4,396 \text{ ft}^2$ I. $3,768 \text{ ft}^2$



8. _____

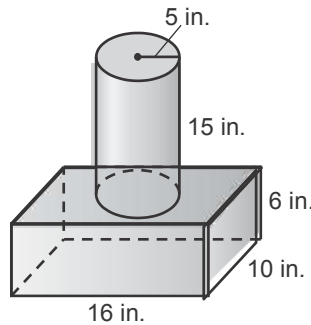
9. The popcorn containers at a movie theater are in the shape of cones. Suppose a popcorn container has a radius of 6 inches and a slant height of 12 inches. What is the lateral area of the popcorn container rounded to the nearest inch?

- A. 113 in^2 B. 226 in^2 C. 339 in^2 D. $1,357 \text{ in}^2$

9. _____

10. What is the volume of the composite shape to the nearest whole number?

- F. $2,138 \text{ in}^3$ H. $1,035 \text{ in}^3$
 G. $1,178 \text{ in}^3$ I. 960 in^3



10. _____

11. The surface area of a triangular prism is 78 square inches. What is the surface area of a similar prism that is three times as large?

- A. 156 square inches C. 312 square inches
 B. 234 square inches D. 702 square inches

11. _____

12. A cone has a volume that is 350 cubic meters. What is the volume of a similar cone that is twice as large as the first cone?

- F. 2,800 cubic meters H. 700 cubic meters
 G. 1,400 cubic meters I. 175 cubic meters

12. _____