

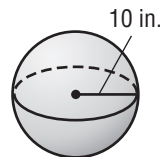
# Test, Form 1A

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

For Exercises 1–4, what is the volume of each solid? Round to the nearest tenth if necessary.

1. **A.** 4,188.8 in<sup>3</sup>  
**B.** 3,141.6 in<sup>3</sup>

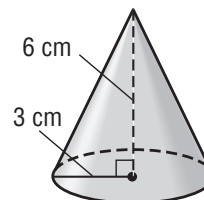
- C.** 418.8 in<sup>3</sup>  
**D.** 314.2 in<sup>3</sup>



1. **A** \_\_\_\_\_

2. **F.** 37.7 cm<sup>3</sup>  
**G.** 56.5 cm<sup>3</sup>

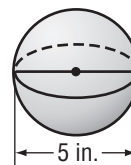
- H.** 113 cm<sup>3</sup>  
**I.** 169.9 cm<sup>3</sup>



2. **G** \_\_\_\_\_

3. **A.** 49.1 in<sup>3</sup>  
**B.** 65.4 in<sup>3</sup>

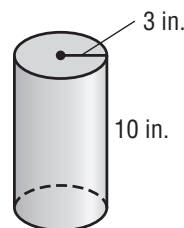
- C.** 196.3 in<sup>3</sup>  
**D.** 200 in<sup>3</sup>



3. **B** \_\_\_\_\_

4. **F.** 94.2 in<sup>3</sup>  
**G.** 188.4 in<sup>3</sup>

- H.** 282.7 in<sup>3</sup>  
**I.** 1,130.4 in<sup>3</sup>

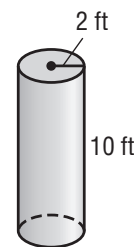


4. **H** \_\_\_\_\_

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

- A.** 62.8 cm<sup>2</sup>  
**B.** 113.0 cm<sup>2</sup>

- C.** 150.8 cm<sup>2</sup>  
**D.** 251.2 cm<sup>2</sup>



5. **C** \_\_\_\_\_

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.** 113.0 m<sup>2</sup>  
**G.** 131.9 m<sup>2</sup>

- H.** 226.0 m<sup>2</sup>  
**I.** 263.8 m<sup>2</sup>

6. **F** \_\_\_\_\_

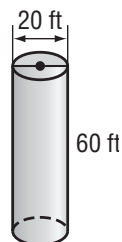
# Test, Form 1A *(continued)*

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<sup>3</sup>      B. 75.4 in<sup>3</sup>      C. 150.7 in<sup>3</sup>      D. 301.4 in<sup>3</sup>

7.        **B**

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



- F. 7,536 ft<sup>2</sup>                                      H. 4,084 ft<sup>2</sup>  
G. 4,396 ft<sup>2</sup>                                      I. 3,768 ft<sup>2</sup>

8.        **H**

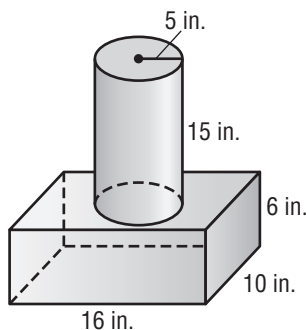
9. The popcorn containers at a movie theater are in the shape of cones. Suppose a popcorn container has a radius of 6 inches and a slant height of 12 inches. What is the lateral area of the popcorn container rounded to the nearest inch?

- A. 113 in<sup>2</sup>                                      C. 339 in<sup>2</sup>  
B. 226 in<sup>2</sup>                                      D. 1,357 in<sup>2</sup>

9.        **B**

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

- F. 2,138 in<sup>3</sup>  
G. 1,178 in<sup>3</sup>  
H. 1,035 in<sup>3</sup>  
I. 960 in<sup>3</sup>



10.        **F**

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  
B. 234 square inches  
C. 312 square inches  
D. 702 square inches

11.        **D**

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  
G. 1,400 cubic meters  
H. 700 cubic meters  
I. 175 cubic meters

12.        **F**