

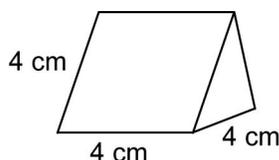
## Chapter 9 Test

### Multiple Choice

- The surface area of a rectangular prism with length 5 ft, width 4 ft, and height 1 ft is  
 A  $10 \text{ ft}^2$                       B  $20 \text{ ft}^2$   
 C  $29 \text{ ft}^2$                         D  $58 \text{ ft}^2$
- The volume of a square-based pyramid with base 3 cm by 3 cm and height 10 cm is  
 A  $16 \text{ cm}^3$                         B  $30 \text{ cm}^3$   
 C  $90 \text{ cm}^3$                         D  $120 \text{ cm}^3$
- When the radius of a cone is doubled, the volume is  
 A two times the volume of the original prism  
 B four times the volume of the original prism  
 C six times the volume of the original prism  
 D eight times the volume of the original prism
- The volume of a cylinder with radius 6 ft and height 6 ft is  
 A  $25.1 \text{ ft}^3$                         B  $75.4 \text{ ft}^3$   
 C  $678.2 \text{ ft}^3$                       D  $67.8 \text{ ft}^3$

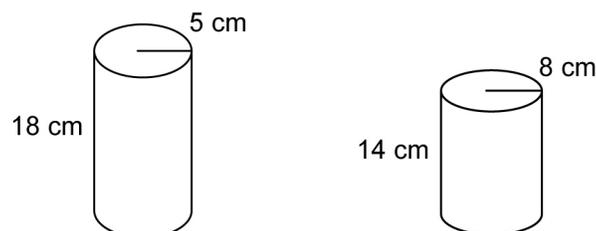
### Short Response

- A cube has side length 5 in. A rectangular prism has dimensions 6 in. by 6 in. by 3 in.  
 a) Which object has the greater volume? Show your work.  
 b) Which object has the greater surface area? Show your work.
- Chelsea packed a travel alarm clock for a weekend trip to the cottage.

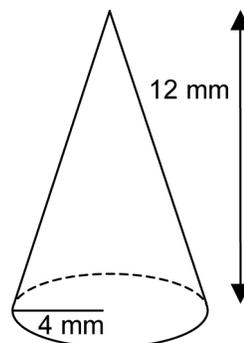


- Draw a net for the clock, and find its surface area.
- How much space does the clock take up in her bag?

- Bruce is at the grocery store to buy some apple juice. There are two sizes of cans.



- Find the volume of each can.
  - The taller can costs \$1.49 and the shorter can costs \$1.99. Which can is the best buy? Explain your answer.
- a) Find the volume of this cone.



- The volume of a sphere is one-quarter the volume of this cone. Find the radius of the sphere.

### Extended Response

- Sari made a pitcher of lemonade. How many cups of lemonade are in the pitcher if the surface of the lemonade is 2 cm from the rim of the pitcher?

