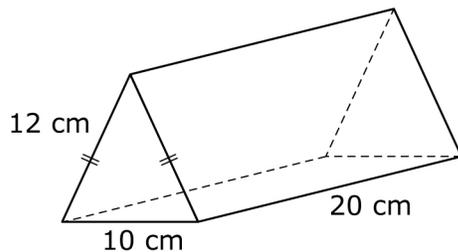
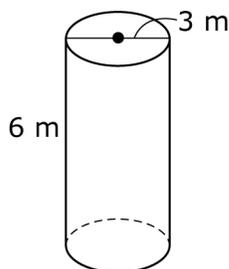


## Chapter 1 Test

1. The triangular prism shown has an approximate height of 11 cm.



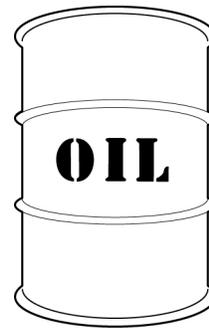
- a) Draw the net of the triangular prism.  
 b) What is the surface area of the triangular prism?
2. A cylinder has a diameter of 3 m. What is the surface area of the top of the cylinder, to the nearest tenth of a metre?



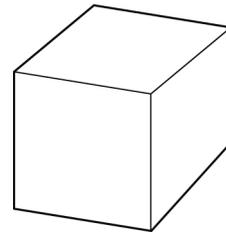
3. The cylinder in #2 is 6 m tall.  
 a) What is the surface area of the curved surface of the cylinder, to the nearest tenth of a square metre?  
 b) What is the total surface area of the cylinder, including the top and bottom, to the nearest tenth of a square metre?

4. Match the correct name with each 3-D object below.

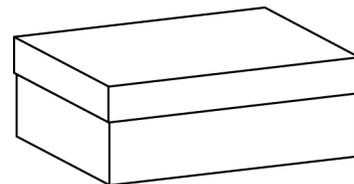
- a) rectangular prism  
 b) triangular prism  
 c) cylinder  
 d) cube



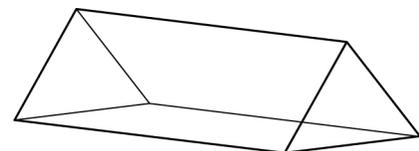
oil drum



sugar cube



shoe box

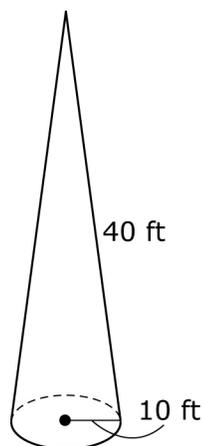
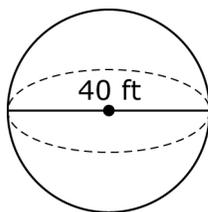


glass prism

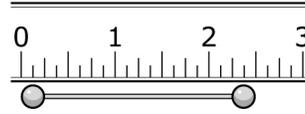


- 5.** A mining company needs to enclose a conveyor belt with a rectangular prism made of steel. The enclosure needs to be 32 feet long, 8 feet wide, and 8 feet tall. Before being delivered to the mine, the steel plate needs to be painted with rustproof paint on both the inside and outside surfaces.
- Calculate the approximate surface area of the steel plate that needs to be rustproofed.
  - The rustproof paint is sold by the gallon only. A gallon of paint covers 400 square feet. How many gallons will need to be purchased? How much paint will be left over?

- 6.** An architect is designing the courtyard of an office complex. Two of the features she is going to use will be covered in copper. One is a sphere with a diameter of 40 ft. Another is a cone with a slant height of 40 ft and a radius of 10 ft. Estimate the area of copper sheeting needed to cover the sphere and to cover the cone. Show your thinking.



- 7.** A gold-plated collar pin is constructed of two types of 3-D geometric shapes.



- Name the two shapes.
- Use the ruler in the image to estimate the dimensions of each shape.
- Estimate the surface area of the collar pin that would need gold plating. Do not include the area where the shapes join.

