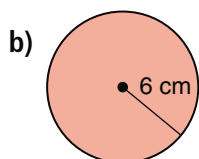
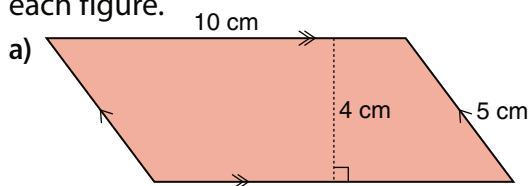
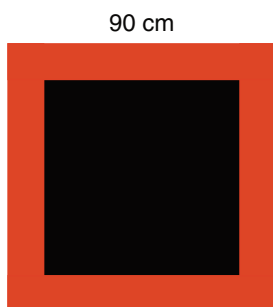


What Should I Be Able to Do?

- 1.1** 1. Determine the perimeter and area of each figure.

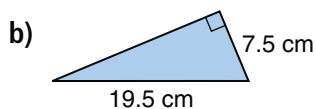
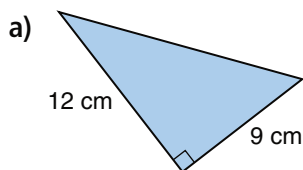


2. A hurricane warning flag is a square with side length 90 cm. The red border is 12 cm wide.

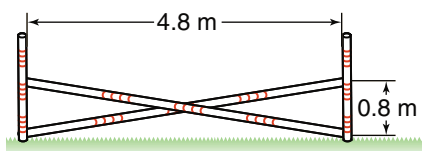


- a) What is the area of black material?
b) What is the area of red material?

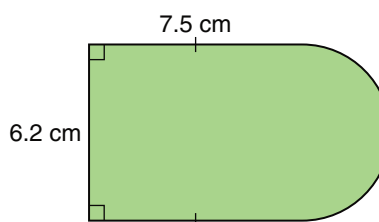
- 1.2** 3. Determine each unknown length.



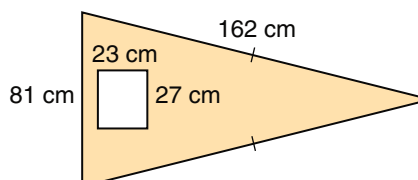
4. Jean set up cross poles for his horse to jump. How long is each cross pole?



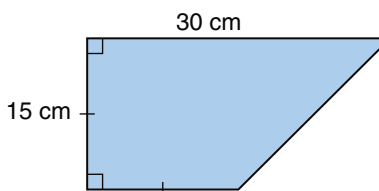
- 1.3** 5. Determine the area of this figure. The curve is a semicircle.



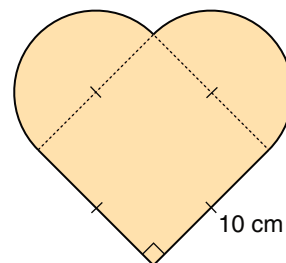
6. The sailing regatta committee has this flag to show a fourth place finish. What is the area of the red material in the flag?



- 1.4** 7. Determine the perimeter of this figure.

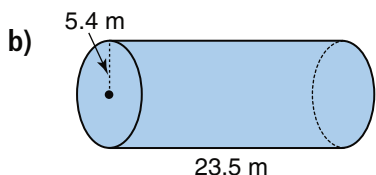
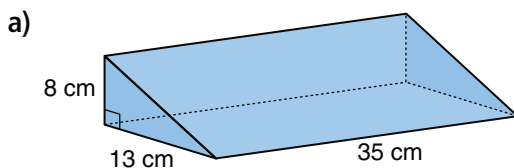


8. A large greeting card has the shape of a square, with a semicircle on each of two sides.



- a) There is a ribbon around the perimeter of the card. How long is this ribbon?
b) How do you know your answer is reasonable?

- 1.5** **9.** Determine the volume of each object.



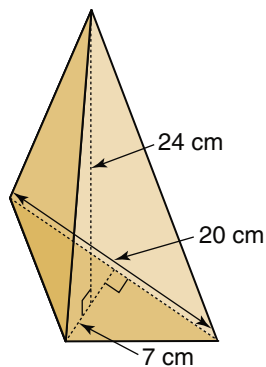
- 10.** A tray of lasagna for 4 people is 19 cm wide, 24 cm long, and 7 cm deep.

- a) Suppose the length and width of the tray are doubled. How many people should this new tray feed? Explain your answer.

Include a diagram.

- b) Suppose each dimension of the tray is doubled. How many people should the larger tray feed? Justify your answer.

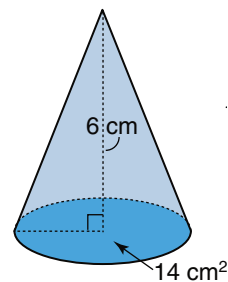
- 1.6** **11.** Determine the volume of the pyramid.



- 12.** The Katimavik Pavilion at Expo '67 is a huge square pyramid. Its base is 20.0 m by 20.0 m. Its height is 14.1 m.

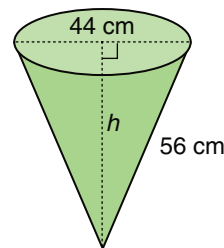
- a) What is the volume of the pyramid?
b) How do you know your answer is reasonable?

- 1.7** **13.** a) What is the volume of the cone?

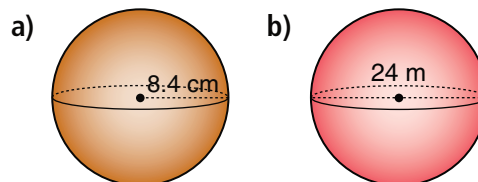


- b) What is the height of this related cylinder?
c) What would the cylinder's height have to be for it to have the same volume as the cone? Check your answer.

- 14.** Sebastian is filling a conical piñata. How much space is there for candy?



- 1.8** **15.** Determine the volume of each sphere.



- 16.** In February 2003, Andy Martell of Toronto set a world record for the largest ball of plastic wrap. The ball was approximately spherical. Its diameter was about 43.6 cm.
- a) What was its volume?
b) How do you know your answer is reasonable?