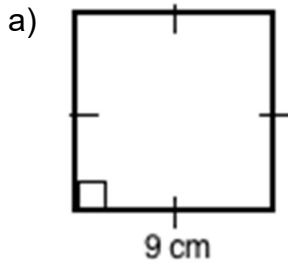


**Apprenticeship Math 12**  
**REVIEW**  
**Unit 2 – Surface Area and Volume**

Name: \_\_\_\_\_

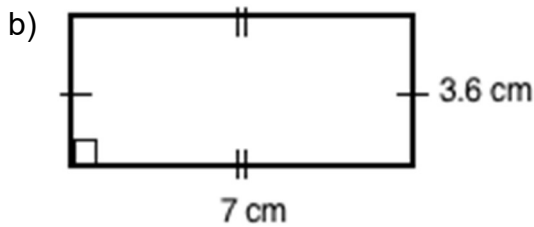
Date: \_\_\_\_\_

1. Find the area and perimeter of the following shapes. If rounding is necessary, give your answer to the nearest hundredth.



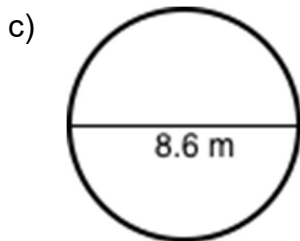
area = \_\_\_\_\_

perimeter = \_\_\_\_\_



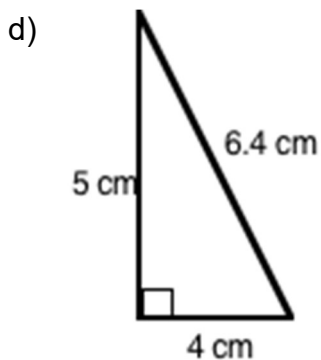
area = \_\_\_\_\_

perimeter = \_\_\_\_\_



area = \_\_\_\_\_

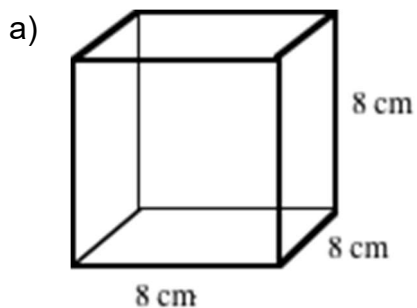
perimeter = \_\_\_\_\_



area = \_\_\_\_\_

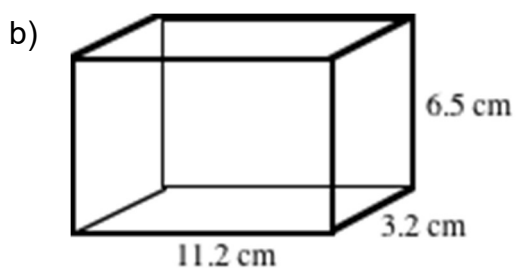
perimeter = \_\_\_\_\_

2. Calculate the surface area and volume of the following objects. If rounding is necessary, give your answer to the nearest tenth.



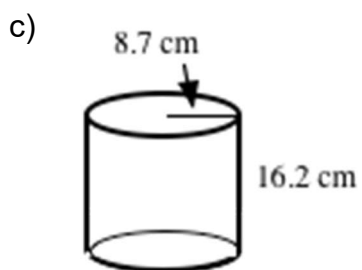
S.A. = \_\_\_\_\_

volume = \_\_\_\_\_



S.A. = \_\_\_\_\_

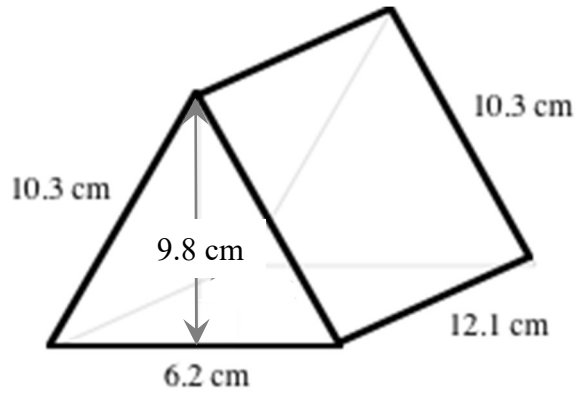
volume = \_\_\_\_\_



S.A. = \_\_\_\_\_

volume = \_\_\_\_\_

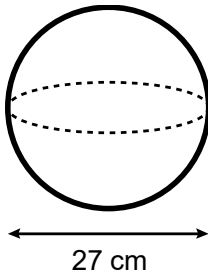
d)



S.A. = \_\_\_\_\_

volume = \_\_\_\_\_

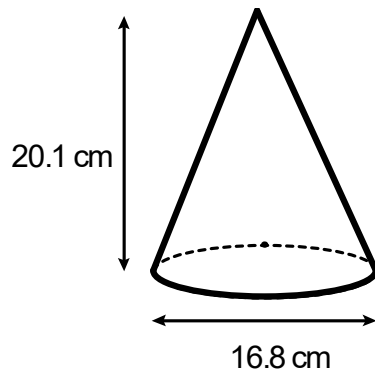
e)



S.A. = \_\_\_\_\_

volume = \_\_\_\_\_

f)

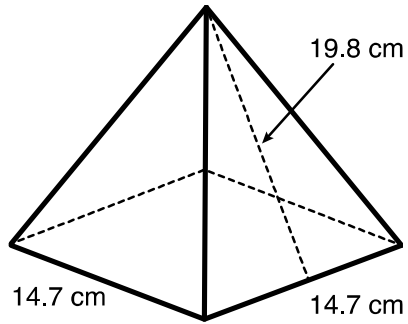


S.A. = \_\_\_\_\_

volume = \_\_\_\_\_

Hint: Use Pythagoras to calculate the slant height... you'll need it to find the surface area!

g)



S.A. = \_\_\_\_\_

volume = \_\_\_\_\_

Hint: Use Pythagoras to calculate the height...  
you'll need it to find the volume!

3. A storage bin is a rectangular prism that measures 125 cm long by 55 cm wide by 70 cm deep.

a) What is the surface area of the bin?

\_\_\_\_\_

b) What is the volume of the bin?

\_\_\_\_\_

4. What is the capacity, in litres, of a cone with radius of 62 cm and a height of 26 cm?  
Round your answer to the nearest hundredth. Hint: 1 L = 1000 cm<sup>3</sup>

\_\_\_\_\_

5. A can of pineapple juice that stands 23 cm tall has a volume of  $1800 \text{ cm}^3$ .

What is the diameter of the can, rounded to the nearest tenth? \_\_\_\_\_

6. A giant Toblerone bar has ends (bases) that are equilateral triangles with 25 cm long sides. The bar is 90 cm in length from end to end.

a) What is the height of the base (rounded to the nearest hundredth)? Hint: Use Pythagoras! \_\_\_\_\_

b) What is the volume of the bar (rounded the nearest tenth)? \_\_\_\_\_

c) What is the capacity of the bar in litres (rounded to the nearest tenth)? \_\_\_\_\_

Hint:  $1 \text{ L} = 1000 \text{ cm}^3$

1. a)  $A = 81 \text{ cm}^2$ ,  $P = 36 \text{ cm}$  b)  $A = 25.2 \text{ cm}^2$ ,  $P = 21.2 \text{ cm}$   
 c)  $A = 58.09 \text{ m}^2$ ,  $P = 27.02 \text{ m}$  d)  $A = 10 \text{ cm}^2$ ,  $P = 15.4 \text{ cm}$   
 2. a)  $SA = 384 \text{ cm}^2$ ,  $V = 512 \text{ cm}^3$  b)  $SA = 258.9 \text{ cm}^2$ ,  $V = 233.0 \text{ cm}^3$   
 c)  $SA = 1361.1 \text{ cm}^2$ ,  $V = 3852.2 \text{ cm}^3$  d)  $SA = 385.0 \text{ cm}^2$ ,  $V = 367.6 \text{ cm}^3$   
 e)  $SA = 2290.2 \text{ cm}^2$ ,  $V = 10306.0 \text{ cm}^3$  f)  $SA = 796.4 \text{ cm}^2$ ,  $V = 1485.2 \text{ cm}^3$   
 g)  $SA = 798.2 \text{ cm}^2$ ,  $V = 1324.6 \text{ cm}^3$   
 3. a)  $38950 \text{ cm}^2$  (or  $3.90 \text{ m}^2$ ) b)  $481250 \text{ cm}^3$  (or  $0.48 \text{ m}^3$ )  
 4.  $104.66 \text{ L}$   
 5.  $5.0 \text{ cm}$   
 6. a)  $21.65 \text{ cm}$  b)  $24356.3 \text{ cm}^3$  c)  $24.4 \text{ L}$