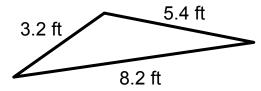
Math 1333 Chapter 8 & 9 Unit Test 3

Name: _____ Section:____

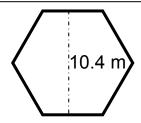
Be sure to show all your work and circle your answer.

Find the following. Round your answer to three significant digits:



1) Find the perimeter.

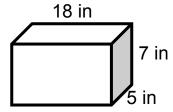
2) Find the area.



(assume all the sides are equal)

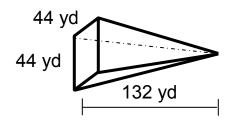
3) Find the perimeter.

4) Find the area.



5) Find the volume.

6) Find the surface area.

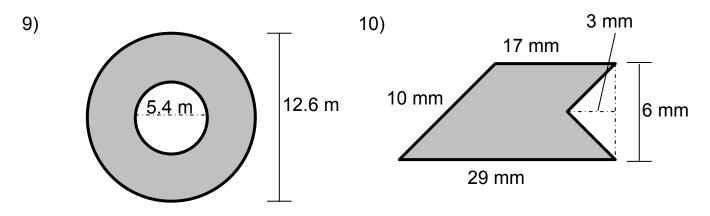


7) Find the volume.

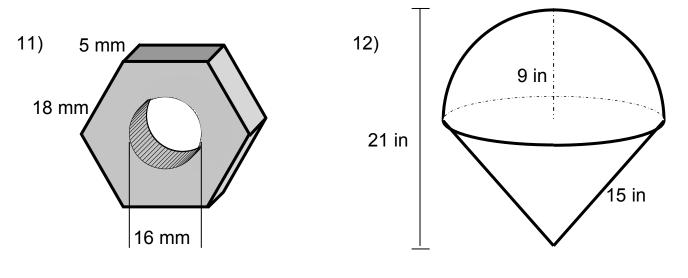
8) Find the lateral surface area.

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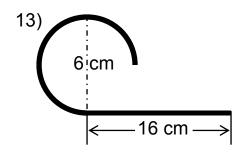
Find the area of the shaded region. Round your answer to three significant digits:



Find the volume of the following. Round your answer to three significant digits:



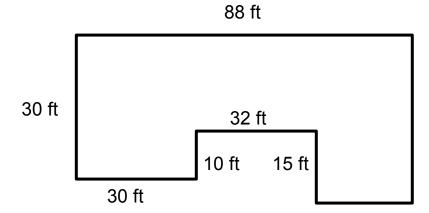
Find the length of stock needed to create the following shapes. Assume the stock is 1 cm thick. Round to one decimal place:



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Solve the following. Round to three significant digits:

- 14) If glass weighing 0.018 lb/in² is used to make a fish tank that is 24 1/4 inches long, 12 1/2 inches wide, and 12 3/4 high, how many pounds will the tank weigh when empty? Assume there is no glass on top and the frame weighs 0.500 lb.
- 15) A feeding trough will be constructed from sheet metal as a half a cylinder lying on its side. If the length of the trough will be 32.0 ft, what diameter must the trough be to hold 110 ft³ of feed?
- 16) How many feet of fencing is needed to enclose the following piece of land?



Answers:

- 1) P = 16.8 ft 2) $A \approx 5.12 \text{ ft}^2$ 3) $P \approx 36.0 \text{ ft}$ 4) $A \approx 93.7 \text{ ft}^2$
- 5) $V = 63\overline{0} \text{ in}^3$ 6) $SA = 502 \text{ in}^2$ 7) $V \approx 85,200 \text{ yd}^3$ 8) $L \approx 11,800 \text{ yd}^2$
- 9) $A \approx 102 \text{ m}^2$ 10) $A = 129 \text{ mm}^2$ 11) $V \approx 3200 \text{ mm}^3$ 12) $V \approx 2540 \text{ in}^3$
- 13) The length is \approx 32.5 cm. 14) The tank weighs \approx 22.8 lb.
- 15) The diameter should be \approx 2.96 ft 16) 266 ft of fencing is needed.