

MEASUREMENT ASSIGNMENT-
USE YOUR CONVERSION CHART TO COMPLETE THE FOLLOWING

Part 1- Measurement

1) Use the table below to convert the following measures into the desired units then fill in the blanks.

- A) 6 feet = _____ inches B) 5 yards = _____ inches
- C) 12 miles = _____ kilometers D) 34 inches = _____ cm
- E) 25°C = _____ $^{\circ}\text{F}$ F) 4 gallons = _____ pints
- G) 38 litres = _____ gallons H) 5000 mm = _____ meters

2) Mary's personal trainer recommended she drink 3 quarts of water per day. Mary bought a case of 250ml bottles of water. How many bottles should she drink each day to equal 2 quarts?

- 3) If you bought a 24 foot ladder, how many meters would it be?
- 4) How many square feet is a house that measures 42 squared meters?
- 5) Joe is 1.75 meters tall, How tall is Joe in feet?
- 6) Sally has a full 2 gallon jug of Windex. How many 1 pint bottles can she fill?
- 7) How many pounds are in 88 ounces?.
- 8) Eric is 5' 7" tall. How many inches tall is Eric?
- 9) How many pounds are in 2.5 kilograms?
- 10) Water boils at 100°C . What temperature would this be in Fahrenheit?.
- 11) If the temperature is 74°F . What temperature would this be in Celsius?

IMPERIAL AND METRIC MEASUREMENT - ASSIGNMENT #2

Use your conversion chart and a calculator to complete the questions below.

- 1) Calculate the cost before taxes to carpet a room that measures 12 ft by 17 ft. The carpet cost \$24 per square yard. (There are 3ft in a yard , so there are 9ft in one sq yd)

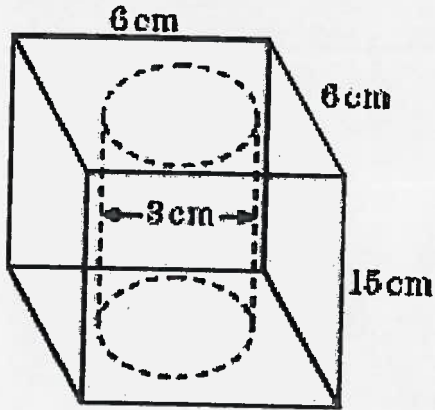
- 2) Steve owns a restaurant in Arizona. He bought a 55 gallon drum of ketchup at a wholesale store. For the tables, he has $\frac{1}{2}$ pint squeeze bottles that he fills with ketchup from the drum. How many bottles can he fill from the drum of ketchup?

- 3) The cost of porcelain tile flooring is \$51.25/m² . The Smith family is installing these tiles in the rectangular foyer of their home, which measures 15ft by 12 ft. Find the cost of flooring before tax?

- 4) The school gym floor needs to be resurfaced. Hardwood flooring costs \$ 6 per square foot plus \$ 2.50 per square foot for installation. The gym measures 180 ft by 220 ft.
 - A) How large is the gym floor in square feet?
 - B) How much would it cost to buy the hardwood flooring for the gym?
 - C) How much would it cost to install the hardwood flooring in the gym?

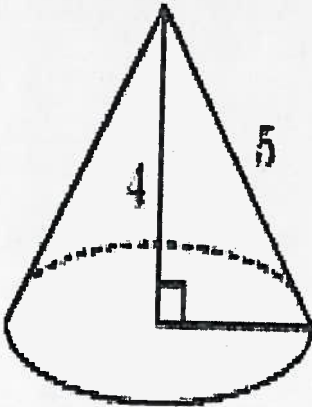
TEST REVIEW

1. A cylinder is cut from a rectangular prism as shown. What is the volume of the resulting solid? Show the steps of your solution and answer accurately to the nearest cubic centimetre.



2. A box shaped like a rectangular prism is used to hold wooden blocks. Each block measures 8 cm by 4 cm by 2 cm. If the box measures 64 cm by 24 cm by 12 cm, how many blocks will fit into the box?

3. Salt for use on icy roads is stored in a conical pile 4.0 m high. The distance from the apex of the cone to the circumference of the base is 5.0 m.

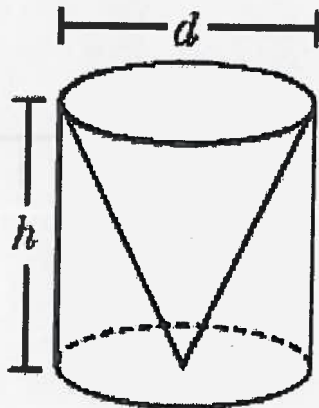


- (a) Calculate the volume of the pile, correct to the nearest tenth of a cubic metre.
(b) If one truck can take 6.3 m^3 of salt, how many trucks can be filled from the pile? ~~Use~~

4. A scoop of ice cream with a volume of 904 cm^3 is placed in an ice cream cone with a radius of 6.0 cm . If the cone can hold all of the ice cream when it melts, what is the minimum height of the cone to the nearest unit?. [Use $\pi = 3.14$.]



5. A right cylinder with a height, h , of 12.0 cm and a diameter, d , of 6.00 cm has a cone removed as shown in the diagram.



- (a) Calculate the surface area of the solid. Answer accurately to the nearest square centimetre.
- (b) If the surface is to be covered with gold foil at a cost of $\$0.15$ per cm^2 , calculate the minimum cost to cover the solid with gold foil.
6. A spherical gas storage tank has a radius of 12.0 m . The paint needed to cover the exterior of the tank costs $\$35/\text{can}$ and each can covers 80.0 m^2 of surface.
- (a) Calculate the surface area of the tank to the nearest square metre. [Use $\pi = 3.14$.]
- (b) Find the cost to paint the tank with one coat of paint.
- Show the steps of your solution.

UNIT 3 TEST - MEASUREMENT, SURFACE AREA AND VOLUME

1) Use the table below to convert the following measures into the desired units then fill in the blanks.

A) 6 feet = _____ inches

B) 5 yards = _____ inches

C) 12 miles = _____ kilometers

D) 34 inches = _____ cm

E) 25°C = _____ $^{\circ}\text{F}$

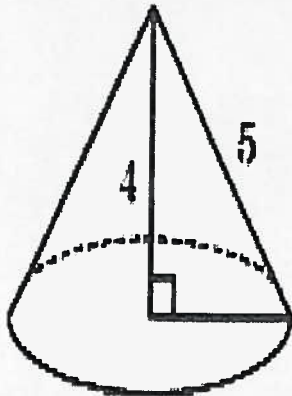
F) 4 gallons = _____ pints

G) 38 litres = _____ gallons

H) 5000 mm = _____ meters

2) Mary's personal trainer recommended she drink 3 quarts of water per day. Mary bought a case of 250 ml bottles of water. How many bottles should she drink each day to equal 3 quarts?

3. Salt for use on icy roads is stored in a conical pile 4.0 m high. The distance from the apex of the cone to the circumference of the base is 5.0 m.



(a) Calculate the volume of the pile, correct to the nearest tenth of a cubic metre.

(b) If one truck can take 6.3 m^3 of salt, how many trucks can be filled from the pile? [Use $\pi = 3.14$.]

4) A candle in the shape of a square - based pyramid has a height of 10cm and the length of each side of the base is 8cm. How much wax is needed to create the candle?

5) Calculate the cost before taxes to carpet a room that measures 12ft by 17 ft. The carpet costs \$ 24 per square yard . (Hint - There are 9 feet in one square yard)

6) A cylinder with a radius of 14 inches has a volume of 267.3 inches^3 . Find the height of the cylinder to the nearest tenth of an inch ?