DAY 1 - Measuring & Converting Between Units

1.
Which units you would use to measure in each case.
   a)   the size of a book

   b)   a desk

   c)   a lawn

   d)   an airfield

3.   For each situation, which would be more appropriate: an
     exact measure or an approximation.
     a)   the dose of a medicine

     b)   the outside temperature when you are deciding what
          to wear

     c)   the length of a car trip

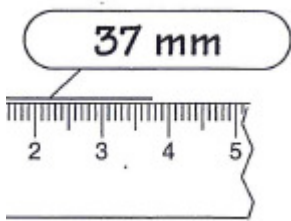   d)   the dimensions of parts of a machine

     e)   your height

2.
Read the indicated measures on the ruler below. It measures lengths up to 6" to the
nearest 16th inch. **Hint:** All measures are reduced to lowest terms.
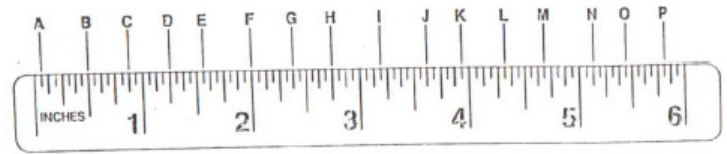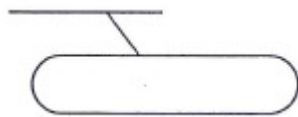
I. _____   J. _____   K. _____   L. _____

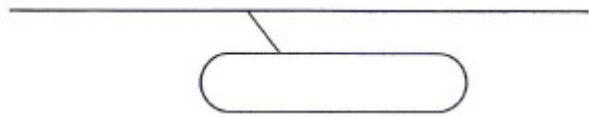M. _____   N. _____   O. _____   P. _____

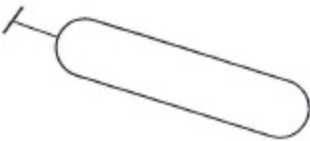Measure each segment to the nearest millimeter, as shown

37 mm

4.

5.

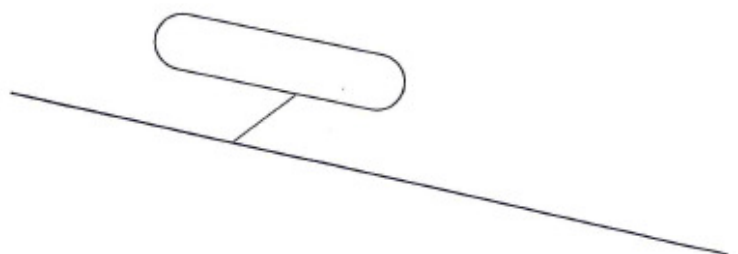Measure each segment in inches, to the nearest 16th of an inch
6.

7.

8.

9.   ANS: _____   10. ANS: _____   11. ANS: _____

SINGLE STEP CONVERSIONS

12. Convert the following metric measures:
    a) 2400 m = _____ km

    b) 34 cm = _____ mm

    c) 5 L = _____ mL

    d) 3200 g = _____ kg

13. Convert the following imperial measures:
    a) 4 pounds = _____ ounces

    b) 6.5 quarts = _____ pints

    c) 42 inches = _____ feet

    d) 3 miles = _____ yards

14. Convert the following metric and imperial measures:
    a) 36 inches = _____ cm

    b) 40 km = _____ miles

    c) 10 gallon = _____ L

    d) 140 g = _____ ounce

15. Jesse needs to order flooring for his room. He measured the dimensions of the room to be 300 cm by 375 cm. However, the flooring company needs to know these dimensions in feet. Find the dimensions of the room in feet.

16.
    You have a 1.5 gal jug. How many litres will it hold?

DAY 2 - Measuring & Converting Between Units

1.
Which units you would use to measure in each case.
   a) the volume contained in a thimble

   b) the volume contained in a glass

   c) the volume contained in a swimming pool

   d) the volume contained in an ocean

   e) the weight of a sheet of paper

   f) the weight of a book

   g) the weight of a person

   h) the weight of a car

2.
Refer to the ruler below. Read these measures in feet and inches to the nearest 16th of an inch.
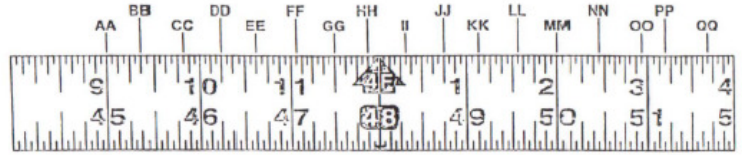
Just inches

JJ. _____   KK. _____   LL. _____   MM. _____

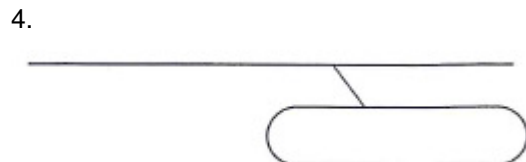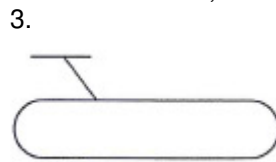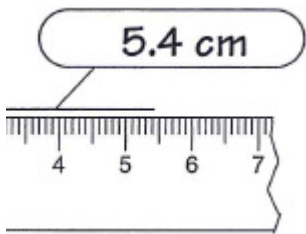NN. _____   OO. _____   PP. _____   QQ. _____

Now feet and inches

JJ. _____   KK. _____   LL. _____   MM. _____

NN. _____   OO. _____   PP. _____   QQ. _____

Measure each segment to the nearest centimeter, as shown

3.

5.4 cm

4.

Measure each segment in inches, to the nearest 16th of an inch

5.

6.

7.
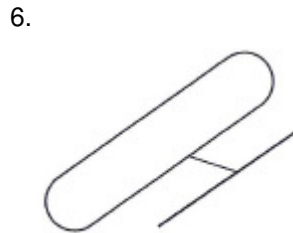
SINGLE & MULTI STEP CONVERSIONS

8.   60 cm   inches

9.   3 m   yards

10.   600 g   pounds

11.   4 L   quarts

12. TEMPERATURE CONVERSIONS

Yesterday, the high temperature in Orlando, Florida, was 87°F. The high temperature in Stouffville, Ontario, was 28°C. Which city had the greater high temperature? How do you know?

13.

a) The temperature range in which most bacteria grow is from 5°C to 60°C. What is this range in degrees Fahrenheit?

b) *Salmonella* bacteria are destroyed at cooking temperatures above 150°F. What is this temperature in degrees Celsius?

14. COMPARING CONVERSIONS

The Sun Supermarket charges $3.25 for 2 lb of strawberries, while the Golden Supermarket charges $1.80 for 450 g of strawberries. Which store gives the better value for strawberries? Work in pounds

15.

Herman's Grocery charges $4.50 for 3 lb of apples, while Chi's Grocery charges $3.50 for 900 g. Which store has the better deal for apples? Show your work in pounds.

16. CONVERT

a) 105 mL   tablespoons

c) 12 L   quarts

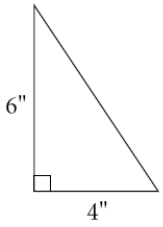**b)** 19 gal   litres

d) 30 mi   kilometres
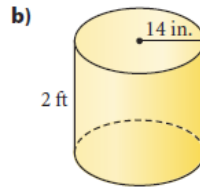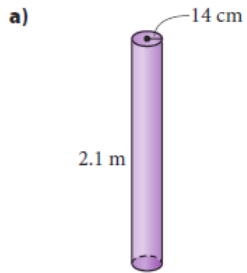
DAY 3 –Surface Area & Volume
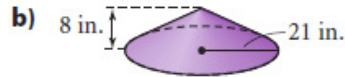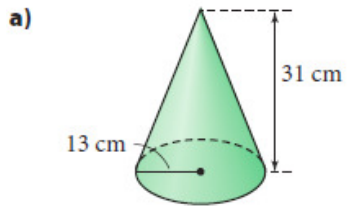
1. Find area and perimeter

6"

4"

Find the surface area for the shapes in the **left column** and volume for the shapes in the **right column**. Record units in your answer
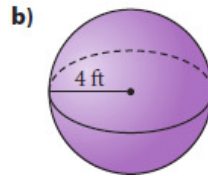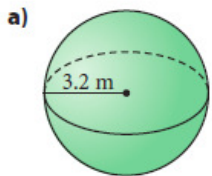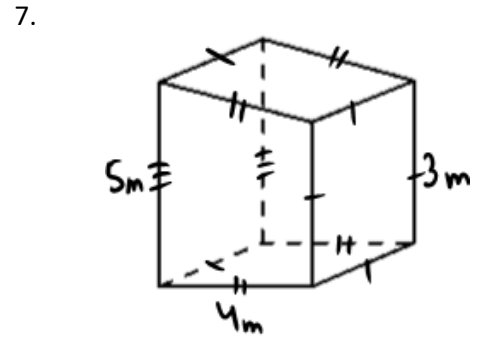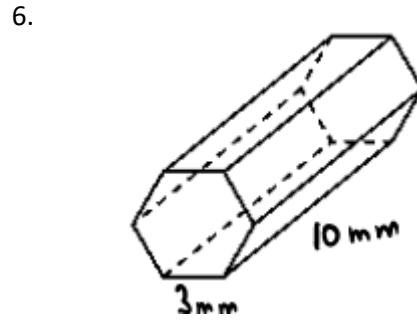
2.

a)

−14 cm

2.1 m

b)

14 in.

2 ft

3.

a)

31 cm
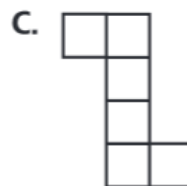
13 cm

b) 8 in.

−21 in.

4.

a)

3.2 m

b)

4 ft
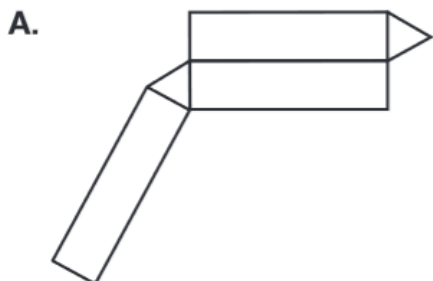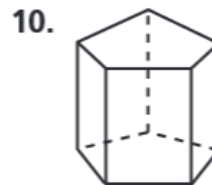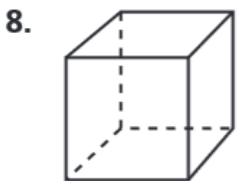
Draw the nets for each object. Label each dimension on the net. No other calculations necessary

5.   6.   7.

5 yd

5 yd

6 yd   5 yd

10 mm

3mm

5m

3m

4m
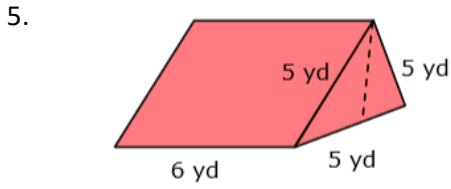
Match the following objects to their nets

8.   9.   10.   11.

A.   B.   C.   D.
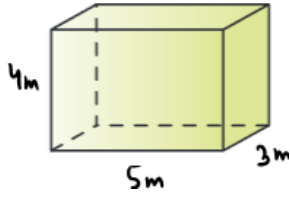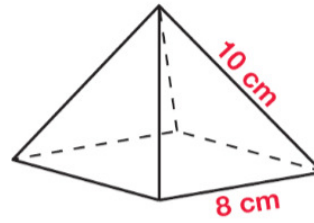
DAY 4 – More Surface Area & Volume

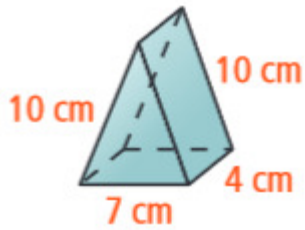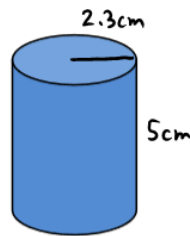Draw the nets for each object then use it to find the surface area of each object

1.

4m
5m
3m

2.

10 cm
8 cm

3.

10 cm
10 cm
4 cm
7 cm

4.

2.3cm
5cm

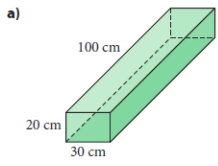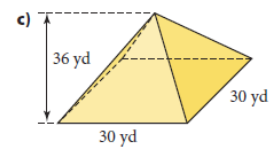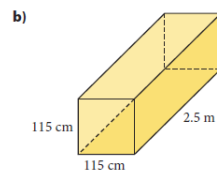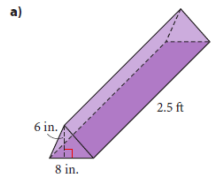5. For each of the following draw a **net** (unwrapped, flat version) of the shape provided, then find the surface area of the object.

a)

100 cm

20 cm

30 cm

b)

1.1 m   2.0 m

1.4 m

c)

7 ft

2 ft
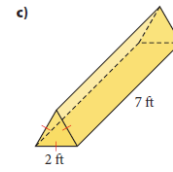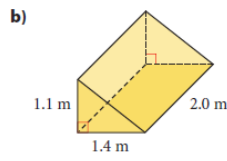
6. Find the volume of each shape

a)

2.5 ft

6 in.

8 in.

b)

115 cm

2.5 m

115 cm

c)

36 yd

30 yd

30 yd

30 yd

Practice TEST

1. The volume of a cube with sides 4 cm long is

6. The temperature in Jamaica is 80°F, while the temperature in Toronto is 15°C. How much warmer is it in Jamaica than in Toronto? Give your answer in degrees Celsius.

2. The surface area of a cylinder with radius 2 cm and height 6 cm is

3. When the sides of a rectangular prism are doubled in length, the volume is (pick one statement)
   A two times the volume of the original prism
   B four times the volume of the original prism
   C six times the volume of the original prism
   D eight times the volume of the original prism

7. Convert each measure using the indicated units.
   a) 320 km   miles

   b) 56 gal   litres

4. If Casey's milk jug is filled with 80 fl oz of milk, then the number of pints in the jug is:

   c) 120 mL   tablespoons

   d) 16 lb   grams

5. Kim's convenience store charges $1.60/L for grapefruit juice. The cost of 2 gal of juice would be approximately:

9.   Billy's tent is in the shape of a triangular prism.

3 ft

7 ft   4 ft
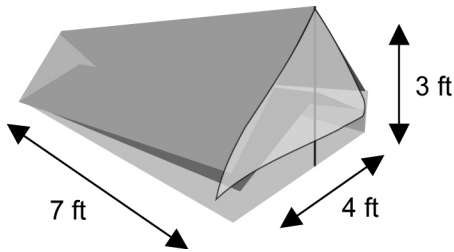
a) What is the volume of the tent?

b) Find the slanted length of the roof.

c) Draw the net and label dimensions

d) How much material (surface area) was used to make the tent, including the floor?

10. Tran paid $24 for 32 L of gas. Lilly paid $27 for 10 gal of gas. Who got the better deal? Show your work in gallons.

12.   The volume of the cone is 750 ft^3. Find the radius of this cone.

6 ft