M10 - 1.0 - Measurement/Conversions/Ratios Review

1) Distance

a) How many centimeters around a 400m track?

b) How many inches in 1m?

c) How many mm in $\frac{1}{2}$ km?

d) How many micrometers in 4 m?

e) How many mm in 0.00024 km?

f) How many yrds in 150m

g) $12\text{cm} + 15\text{km} + 500\text{m} = ?\,\text{m}$

h) $3in + 6ft + 4yrds = ?\,cm$

2) Other

a) How many Litres are in 50 Millilitres?

b) How many seconds in a year?

c) How many kilobytes in 4 Gigabytes?

d) $2days + 13min + 12hr = ?\,hr$

3) Area/Volume

a) How many m^2 in 2 km^2?

b) How many cm^3 in 1 m^3?

c) Find the Rectangle Area in cm^2 if :w=2m & l=3m.

d) Find the number of cm^3 in 1 ft^3?

4) Find the perimeter and area.

a)   b)

5cm

6cm
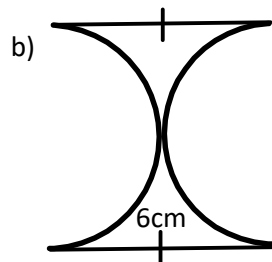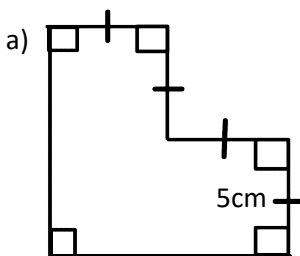
5) Rates

a) How many minutes would it take to fly around the world at 200 kilometres per hour if the radius of the earth is 6.38×10^6 meters.

b) Find Both Unit Rates
Mandy drove 120 km in 2 hours.
Devon delivers 45 papers in 30 minutes.
Milk costs $ 3.20 for a 4 L jug of milk.
Blair eats 1/2 a grape in 1/4 of a second.

c) Find $100\frac{m}{s}$ in $\frac{km}{hr}$.

6) Estimate the length/time of/a(n):

a) Ant.   f) Mt. Everest.

b) School Bus.   g) Distance to Moon

c) Pen.   g) Seconds in a week.

d) Megalodon Shark.   h) Nanoseconds in a minute.

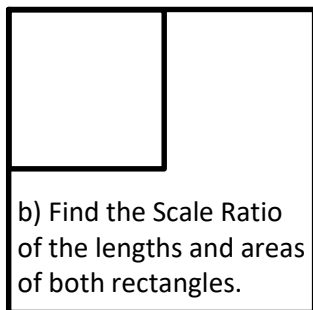e) Eiffel Towel.

7) How long is the S:

S
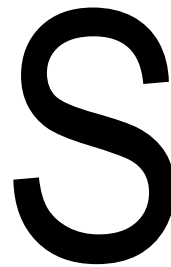
8) Read the Caliper.
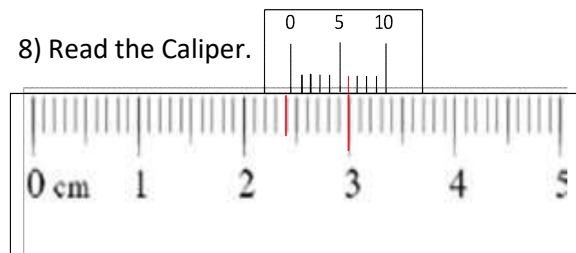
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9) Scale/Ratios

a) Find the ratio of length to width

b) Find the Scale Ratio of the lengths and areas of both rectangles.

10) Find the ratio of a:
A quarter's diameter to a credit card long side.

11) If a scale is 800 : 1 of a totem pole and the model is 2.5 cm, how tall is the town pole?

12) If a scale drawing of a rectangular living room is two inches by three inches has a ratio lengths of 80 : 1, what is the area of the actual living room in square feet.

13) 12 Christmas cookies takes half a cup of sugar. How many cups in 54 cookies.

14) Arya ate 3 pieces of pizza with 5 pieces left. Find the ratio of pieces eaten to total and eaten to left over.

15)
a) Classroom
7 Boys : ___ Girls : 21 Total
        :   : 420 Total
Find all part to part and part to total ratios.

b) Marbles
3 Red : 5 Blue : ___ Total
___   : 35 Blue:___
Find all part to part and part to total ratios.

16) If the scale on a map is 1 : 50,000,000 and the distance on the map between Vancouver and Calgary is 2.1 centimeters what is the actual distance from Vancouver to Calgary in km.
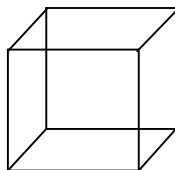
17) Fits Into

a) How many 3 inch pencils to fit in the length of a metre stick.

b) How many $1ft^2$ tiles needed to floor a 300cm by 200 cm room?

c) How many 335 ml pop cans fit into a 4 gallon bucket?

d) 4 liters of paint covers 200 square feet of wall. How many liters of paint in order to cover 50 square meters of wall.

18) How many litres of water can fit in this cube?

$10m$

$1mL = 1cm^3$
$1000mL = 1L$

19) Misc.

Find the velocity of a wheel of radius 20 cm which turns 8 times per second for 1 minute. How many degrees does it turn in that time?