Answer the following True or False:  **Circle One**

1. A liter contains 1,000 smaller units called milliliters.
   - True or False

2. A liter has a Volume of 1,000 cubic centimeters.
   - True or False

3. If we convert 6,543,219 meters, to kilometers we get 6,543.219 km.
   - True or False

4. Nanoscience is the study and development of materials and structures in the range of 1 nm ($10^{-9}$ m) to 100 nanometers ($100 \times 10^{-9} m = 10^2 x 10^{-9} = 10^{-7}$) and the unique properties that arise at that scale.
   - True or False

5. An angstrom $\AA$ is greater than an nanometer.
   - True or False

   **Definition:** Angstrom ($\AA$) = $10^{-10}$ meters

6. A vitamin C tablet has a mass of 500 mg. That is the same as____.
   - (a) 5 g   (b) 0.05 g   (c) 0.5 g   (d) 0.5 kg

7. The length of a pencil would probably best be measured in______.
   - (a) milligrams   (b) meters   (c) micrometers   (d) centimeters

8. The unit of volume that is the same as one cubic decimeter is the_____.
   - (a) meter   (b) liter   (c) gram   (d) millimeter

9. Determine the order of magnitude difference in the sizes of the radii for Atoms ($10^{-10}$ meter) compared with neutrons ($10^{-15}$ meter).
   - (a) Order 4   (b) Order 2   (c) order 12   (d) Order 5

10. How long has it been legal to use the metric system in the U.S?.
    - (a) 1958.
    - (b) 1975.
    - (c) 1866.
    - (d) 1921.

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**Answers:** 1. T  2. T  3. T  4. T  5. F  6. (c) 7. (d) 8. (b) 9. (d) 10 (c)
More Metric Questions including:
Surface Area, Volume & Mass
Consider the box (rectangular Prism) 7 cm by 8 cm by 9 cm and then
answer the questions;

1. The 7 cm by 8 cm by 9 cm box has a capacity less than one
half liter (500 cm³ or 500 mL).
(a) TRUE (b) FALSE 1. Answer _________________

2. The 7 cm by 8 cm by 9 cm box has a Volume greater than 500 cm³.
(a) TRUE (b) FALSE 2. Answer _________________
End of True/False

Answers: 1. (b) Volume = 504 cm³ or 504 mL 2. (a)
3. (b) 382 ; 7 x 8 + 7 x 9 + 8 x 9 and double 
4. (d) 5. (c)

Answer these Multiple Choice Questions:
3. What is the surface area of the 7 cm by 8 cm by 9 cm box?
3. Answer _________________
(a) 191 cm² (b) 382 cm² (c) 94 cm² (d) 32 cm²

4. If the box is filled brim full of water what is the mass of
the water?
4. Ans = _________________ g
(a) 94 g (b) 382 g (c) 500 g (d) 504 g

5. Consider a Liter Cube (10 cm by 10 cm by 10 cm) and
compare with the box above 7 cm by 8 cm by 9 cm.
What is the difference in their capacity (volumes) in mL.
5. Ans = _________________
(a) 1 000 mL (c) 94 mL (c) 496 mL
(d) 940 mL

6. Hello my name is ________________________________
and I am _______________ cm tall which is ___________ m.

7. Hello my School is ______________________________
And we like the Metric System because: ____________ ***
_______________________________________________ ***
_______________________________________________ ****

The End