MEASUREMENTS & SIGNIFICANT FIGURES

Part 1: Measurements
1. Shown below are several metric cm rulers like those you have in your lockers. Read each ruler to the proper number of significant digits? Be sure to include units with your answers.

1) ___________

2) ___________

3) ___________

4) ___________

5) ___________
2. Record the readings on each thermometer shown below?

Part 2: Significant Figures

1. Determine the number of significant figures in the following numbers.

   a) 0.02 ______   b) 0.020 ______   c) 501 ______   d) 501.0 ______
   e) 5,000 ______   f) 5,000. _______   g) 6,051.00 ______
   h) 0.0005 ______   i) 0.1020 _______   j) 10,001 ______

2. Rewrite/round each of the following numbers so that it has 3 significant figures.

   a) 0.03006 ___________   c) 0.007997 ______________
   b) 10,800,000. ___________   d) 90,185 ______________
3. Perform the following operations expressing the answer with the correct number of significant figures.

a) \( 1.35 \text{ m} \times 2.467 \text{ m} = \)

b) \( 0.021 \text{ cm} \times 3.2 \text{ cm} \times 100.1 \text{ cm} = \)

c) \( 1.252 \text{ mm} \times 0.115 \text{ mm} \times 0.012 \text{ mm} = \)

d) \( 55.46 \text{ g} - 28.9 \text{ g} = \)

e) \( 12.01 \text{ mL} + 35.2 \text{ mL} + 6 \text{ mL} = \)

f) \( 0.15 \text{ cm} + 1.15 \text{ cm} + 2.051 \text{ cm} = \)

g) \( \frac{4.00 \times 58.69}{(6.02 \times 10^2) \times 6.84} = \)

h) \( \frac{30.01 \text{ g}}{(62.6 - 56.3) \text{ mL}} = \)