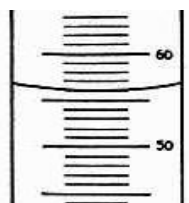


Name: _____ Per: _____

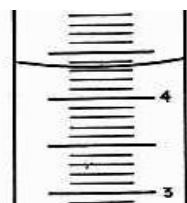
Significant Figures Practice Problems

Part I- Record each measurement with the correct number of sig. figs & units for each device

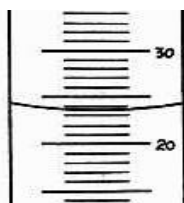
Graduated Cylinders (mL)



1. _____

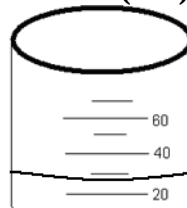


2. _____

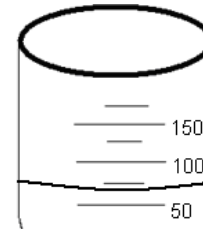


3. _____

Beakers (mL)



4. _____



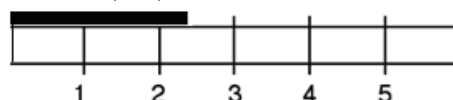
5. _____

Balance (g)



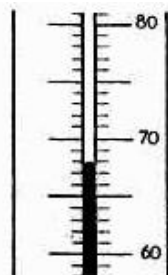
6. _____

Rulers (cm)

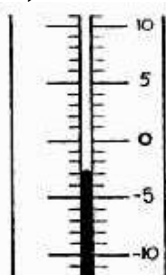


7. _____

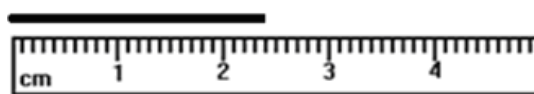
Thermometers (°C)



9. _____



10. _____



8. _____

11. a. Explain in words how you determine the number of sig. figs. on a measuring device.

b. Why do we need to use significant figures in science?

Part II- Identifying Sig Figs and recognizing metric units and the quantities they represent

<u>Measurement</u> (underline the sig figs)	<u># of sig. figs.</u>	<u>Metric Unit</u>	<u>Quantity measured</u>
12) 30040 g	4	Grams	mass
13) 0.663 kg			
14) 20.05 °C			
15) 1500. mg			
16) 0.0008 m			
17) 640 cm			
18) 640. cm			
19) 200.0 mL			
20) 1.005 kg			
21) 10 000 L			
22) 1000.0 L			
23) 10 000. L			
24) 0.04002 kg/m ³			
25) 790 001 cm ³			
26) 665.000 kg			
27) 20.9000 mm ²			

Part III- Use the correct units and correct number of sig. figs. Show your calculator answer too!

28) $\frac{47.0 \text{ m}}{2.2 \text{ s}}$

29) $(140 \text{ cm})(35 \text{ cm})$

30) $\frac{300.3 \text{ L}}{180. \text{ s}}$

31) $\frac{35 \text{ g}}{22 \text{ L}}$

32) $(0.0050 \text{ m}^2)(0.042 \text{ m})$

33) $\frac{5.88 \text{ kg}}{200 \text{ m}^3}$

34) $(33.00 \text{ cm}^2)(2.70 \text{ cm})$

35) $(13.75 \text{ mm})(1.01 \text{ mm})(0.91 \text{ mm})$

36) $\frac{14.9 \text{ m}^3}{3.0 \text{ m}^2}$

37) What is the volume of a container that measures 752 mm x 319 mm x 110 mm?

Part IV- No Calculator. Must show work & correct number of sig. figs.

38) $4.0 \text{ m} \times 3 \text{ m} =$

39) $30.0 \text{ cm} \times 15.0 \text{ cm} \times 3.0 \text{ cm} =$

40) $25 \text{ g} \div 5.0 \text{ mL} =$

41) $1.0 \text{ cm}^3 \div 200.0 \text{ cm}^2$