

Calculations Worksheet

Name _____ Date _____ Mod _____

1 – For each of the following put the numbers into or out of scientific notation:

- | | |
|-------------------|-----------------------------|
| A: 25 000 m | F: 2×10^5 m |
| B: 0.000 620 kg | G: 1.00×10^{-4} kg |
| C: 151 000 000 cm | H: 7.5×10^1 cm |
| D: 436 L | I: 3.6×10^{-6} L |
| E: 0.0020 mL | J: 1.50×10^{-1} mL |

2 – Identify the number of significant figures in each of the following:

- | | |
|-------------|---------------|
| A: 9 mm | F: 909 cm |
| B: 90 g | G: 00.0081 mg |
| C: 900.0 L | H: 0.04900 m |
| D: 0.009 s | I: 0.0224 mL |
| E: 0.090 km | J: 0.04010 dm |

3 – Round the following to the number of significant figures indicated:

- | | |
|------------------------------|------------------------------|
| A: 37.0045 m (to 3 sig figs) | F: 5066.4 mL (to 3 sig figs) |
| B: 6070 g (to 2 sig figs) | G: 0.00903 m (to 1 sig fig) |
| C: 0.05406 L (to 3 sig figs) | H: 9.76 cm (to 2 sig figs) |
| D: 4550.07 s (to 4 sig figs) | I: 70.711 kg (to 3 sig figs) |
| E: 280.33 mg (to 4 sig figs) | J: 0.4832 L (to 1 sig fig) |

4 – Calculate the following (use the formulas when needed / remember to round correctly / include units):

- A: Find the sum of the following mass values: 0.0545 g; 0.12 g; 3.101 g.
- B: The length is 43.1 m. If 0.037 m is taken away, what is the new length?
- C: What is the area if the length is 5.06 cm and the width is 0.33 cm?
- D: Determine the volume of a container with a length of 41.0 mm, width of 2.00 mm, and height of 0.873 mm.
- E: What is the density of the material if the mass is 0.45 g and the volume is 0.9 cm^3 ?

5 – Convert each of the following using the factor label method:

- | | |
|-------------------------|--------------------------------|
| A: 35.7 mL to liters | E: 4.5 mL to cubic centimeters |
| B: 496.3 g to kilograms | F: 10.7 μg to grams |
| C: 15.1 m to Mm | G: 87.3 mg to grams |
| D: 0.38 km to meters | H: 97.5 cm to meters |

6 – In your textbook on page 59, answer questions #35, 36, and 37.