Name _____Mr. Perfect_____ Date ____Sp 11_____

Length	Volume	Energy
100 cm = 1 m 1000 mm = 1 m 1 km = 1000 m 1 ft = 12 in 1 mi = 5280 ft 2.54 cm = 1 in	1 gal = 4 qt 1 qt = 2 pints 1 qt = 32 ounces 1 gal = 3.78 L 1000 mL = 1 L 1 mL = 1 cm^3 = 1 cc	1000 cal = 1 kcal = 1 Cal 1 cal = 4.18 J 1000 J = 1 kJ

1. Convert the following numbers to scientific notation and round off to two significant figures. (3 pts)

33457 0.0021 -0.0342

3.3×10^4 2.1×10^{-3} -3.4×10^{-2}

2. How many liters are in 2.5 mL? (1 pt)

$$2.5\ mL \times \frac{1\ L}{1000\ mL} = 0.0025\ L$$

3. How many cm are in half a mile? (3 pts)

$$0.5\ mi \times \frac{5280\ ft}{1\ mi} \times \frac{12\ in}{1\ ft} \times \frac{2.54\ cm}{1\ in} = 80467.2\ cm = 8\ x\ 10^4\ cm$$

4. If gasoline costs $3.39 per gallon, how much does it cost to drive 40 miles if your car gets 22 miles per gallon? (3 pts)

$$40\ mi \times \frac{1\ gal}{22\ mi} \times \frac{\$\ 3.39}{1\ gal} = \$\ 6.16$$