H, not A   HW day 3

5. Calculate the following using the correct number of significant figures.

a) $2.34 \times 10^8 + 9.22 \times 10^7$ $\underline{3.26 \times 10^8}$ b) $9.1 \times 10^3 - 1.6 \times 10^3$ $\underline{7500 = 7.5 \times 10^3}$

6. Calculate the following using the correct number of significant figures.

a) $(1.54 \times 10^5)(3.5 \times 10^6)$ $\underline{5.39 \times 10^{11} = \boxed{5.4 \times 10^{11}}}$

b) $(7.9 \times 10^{34}) \div (8.32 \times 10^{23})$ $\underline{9.495 \times 10^{10} = \boxed{9.5 \times 10^{10}}}$

7. Express the following numbers in scientific notation.

a) 810,000 g $\underline{8.1 \times 10^5 g}$ b) 0.000634 g $\underline{6.34 \times 10^{-4} g}$ c) 60,000,000 g $\underline{6 \times 10^7 g}$

8. State the number of significant digits in the following measurements.

a) 3218 kg $\underline{\quad 4 \quad}$ b) 60,080 kg $\underline{\quad 5 \quad}$ c) 0.000534 kg $\underline{\quad 3 \quad}$

9. Add/Subtract as indicated and round the answer using the correct number of significant digits.

a) 43.218 g + 2.7 g $\underline{45.918g = 45.9g}$ d) 27.34 g + 6.90 g $\underline{34.24g = 34.24g}$

b) 1.07 km + 0.608 km $\underline{1.678 km = 1.68 km}$ e) 14.325 m − 8.92 m $\underline{5.405m = 5.41m}$

c) 186.4 kg − 57.83 kg $\underline{128.57 kg = 128.6 kg}$ f) 85.26 g + 4.7 g $\underline{89.96g = 90.0g}$

10. Multiply/Divide as indicated and round the answer using the correct number of significant digits.

a) (5.108 m)(4.2107 m) $21.50823 m^2$ $\underline{\boxed{21.51 m^2}}$ d) 74.50 ÷ 4.99 14.9299 $\underline{\boxed{14.9}}$

b) $(1.67 \times 10^2$ m$)(8.5 \times 10^{-6}$ m$)$ $14.195 \times 10^{-7} m^2$ $\boxed{1.4 \times 10^{-7} m^2}$ e) 0.32 x 14.50 x 120 556.8 $\boxed{560 \text{ OR } 5.6 \times 10^2}$

c) $(2.6 \times 10^4$ cm$)(9.4 \times 10^6$ cm$)$ $2.444 \times 10^{11} cm^2$ $\boxed{2.4 \times 10^{11} cm^2}$ f) 24.1 ÷ 0.005 4820 $\boxed{5000}$