

Perform each of the appropriate problems with and without use of a calculator and compare your answers. Don't forget significant figures in your answers.

1. Convert each of the following quantities into scientific notation and round to 3 significant figures:

a) 4,584,400,000

b) 0.000 186 80

c) 0.000 0043 835

d) 86,075,000,000

2. Perform each of the following calculations as indicated:

a) $(8.10 \times 10^{-11})(6.125 \times 10^{-4}) =$

b) $\frac{1.38 \times 10^{12}}{4.2 \times 10^{-6}} =$

c) $\frac{(3.20 \times 10^{28})(3.45 \times 10^{-3})^2}{(8.265 \times 10^8)} =$

d) $(6.15 \times 10^{-12})(1.85 \times 10^3) =$

e) $\frac{(7.82 \times 10^{11})(4.6 \times 10^8)}{3.6 \times 10^{-5}} =$