

Question 11

Perform each of the appropriate problems with and without use of a calculator and compare your answers. Use 3-digit significant figures in your answers.

1. Convert each of the following quantities into scientific notation:

- a) 21,200,000
- b) 4,000,000,000 7
- c) 0.000,000,000
- d) 4,000,000 4

2. Perform each of the following calculations as indicated:

- a)  $(3.2 \times 10^4)(5.6 \times 10^3) =$
- b)  $\frac{5.0 \times 10^4}{2.5 \times 10^3} =$
- c)  $\frac{(6.0 \times 10^4)(3.0 \times 10^2)}{4.0 \times 10^3} =$
- d)  $(2.5 \times 10^4)(3.0 \times 10^3) =$
- e)  $\frac{1.0 \times 10^4(5.0 \times 10^2)}{2.0 \times 10^3} =$