**The Magic of Significant Figures**

1) What is the difference between the values “450 kg”, “450. kg”, and “450.0 kg”?

a) How many significant figures does each number have?

b) Which number rounds the answer to the nearest whole kilogram?

c) Which number is least precise?

d) Which value would we assume is most accurate?

e) Is that value actually the most accurate? Explain your reasoning for this answer.

2) How many significant figures does each number have, and to what precision do we know the measured value?

Example: 0.003 grams has one significant figure and the precision is 0.001 gram

a) 4.50 meters:

b) 320 kilograms:

c) 0.00780 liters:

d) 2.3 x 104 grams: