Chemistry 12 - Review of Significant Digits

TOTAL = 28

The rules for zeros in significant digits are as follows:

a) *All zeros between non-zero digits are significant.*

b) *Zeros at the beginning of a number (eg. 0.0095) are NOT SIGNIFICANT* !
If the number 0.0095 was written in scientific notation, it would be: 9.5×10^{-3}. The exponent is not counted as significant so this number has 2 significant digits.

c) *Zeros on the right side of a number (at the end) are significant if the DECIMAL POINT is shown.*

eg) 50.00 has 4 significant digits
43.0 has 3 significant digits
20. has 2 significant digits
100. has 3 significant digits

d) *Zeros to the left of an UNDERSTOOD decimal point are NOT significant.*

eg) 300 has 1 significant digit
10 000 has 1 significant digit
12 320 has 4 significant digits
420 has 2 significant digits

1. Find the number of **significant digits** in each of the following measurements:

a) 3.4005 5
b) 2980 3
c) 3.20×10^{-2} 3
d) 0.000308 3
e) 23.000 5
f) 9.080×10^{-3} 4
g) 1.00 3
h) 0.0027890 5
i) 320 000 2
j) 9 1