

Significant figures Extra practice 3

Significant Figures – Help Session

Name: KEY

Rules for Deciding How Many Digits in a Number are Significant:

All non-zero digits in a number are significant	314.27	five significant digits
	17	two significant digits
Zeros between other digits are significant	2007	four significant digits
	6.0005	five significant digits
Zeros at the end of a decimal value are significant	17.3400	six significant digits
	2.5000	five significant digits
Zeros at the beginning of a number are NOT significant	0.0031	two significant digits
	0.00005	one significant digit
	036	two significant digits
Zeros at the end of a whole number don't count	17300	3. Notice no decimal.
	150	2
	1300	2

In a whole number ending in zeros like 1300, it is impossible to tell if the zeros are significant: The number of significant digits in 1300 is at least two, but could be three or four. To avoid uncertainty, scientific notation should have been used to indicate how many digits were significant.

For example:

1.3×10^3 has two significant digits

1.30×10^3 has three significant digits

1.300×10^3 has four significant digits

Identify the number of significant figures in the following numbers:

a. 1234 4

b. 0.02 1

c. 340 2

d. 91070 4

e. 8010.0 5

f. 3.4×10^4 2

g. 1000 1

h. 1000. 4

i. 8120 3

j. 004502600 5

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