Significant Figures Worksheet

Significant Figures

1. Indicate how many significant figures there are in each of the following measured values.

246.32	_____	1.008	_____	700000	_____
107.854	_____	0.00340	_____	350.670	_____
100.3	_____	14.600	_____	1.0000	_____
0.678	_____	0.0001	_____	320001	_____

2. Calculate the answers to the appropriate number of significant figures.

32.567	246.24	658.0
135.0	238.278	23.5478
+ 1.4567	+ 98.3__	+ 1345.29__

3. Calculate the answers to the appropriate number of significant figures.

a) 23.7 x 3.8 = _____

b) 45.76 x 0.25 = _____

c) 81.04 g x0.010 = _____

d) 6.47 x 64.5 = _____

e) 43.678 x 64.1 = _____

f) 1.678 / 0.42 = _____

g) 28.367 / 3.74 = _____

h) 4278 / 1.006 = _____

i) (6.8 + 4.7) x 17.44 = _____

j) (320. - 22.7) x 3.8 = _____

k) $\frac{(14.86 + 13.7) \times (65.346 - 4.10)}{(43.888 - 32.888)}$ = _____

Significant Figures Worksheet Key

1. Indicate how many significant figures there are in each of the following measured values.

246.32	5	1.008	4	700000	1
107.854	6	0.00340	3	350.670	6
100.3	4	14.600	5	1.0000	5
0.678	3	0.0001	1	320001	6

Instructors Initials _____

2. Calculate the answers to the appropriate number of significant figures.

32.567	246.24	658.0
135.0	238.278	23.5478
+ 1.4567	+ 98.3	+ 1345.29
169.0	582.8	2026.8

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3. Calculate the answers to the appropriate number of significant figures.

a) 23.7 x 3.8 = 90.

b) 45.76 x 0.25 = 11

c) 81.04 g x0.010 = 0.81

d) 6.47 x 64.5 = 417

e) 43.678 x 64.1 = 2.80×10^3

f) 1.678 / 0.42 = 4.0

g) 28.367 / 3.74 = 7.58

h) 4278 / 1.006 = 4252

i) (6.8 + 4.7) x 17.44 = 11.5 x 17.44 = 201

j) (320. - 22.7) x 3.8 = 297 x 3.8 = 1.1×10^3

k) $$\frac{(14.86 + 13.7) \times (65.346 - 4.10)}{(43.888 - 32.888)} = \frac{28.6 \times 61.25}{11.000} = 159$$