

Name: _____

Practice Problems for Significant Figures

RULE -1: If the decimal is **Present**: Find the first non zero on the left, then count all digits to the **RIGHT**
 If the decimal is **Absent**: Find the first non zero on the right, then count all digits to the **LEFT**

RULE-2: Every digit in scientific notation is Significant

RULE-3: Any number that is counted is an EXACT number and has UNLIMITED significant digits.

How many significant figures do the following numbers have?

1) 1234 _____

8) 3.4×10^4 _____

14) 1000 _____

2) 0.023 _____

9) 9.0×10^{-3} _____

15) 918.010 _____

3) 890 _____

10) 9.010×10^{-2} _____

16) 0.0001 _____

4) 91010 _____

11) 0.00030 _____

17) 0.00390 _____

5) 9010.0 _____

12) 1020010 _____

18) 8120 _____

6) 1090.0010 _____

13) 780. _____

19) 7.991×10^{-10} _____

7) 0.00120 _____

20) 72 _____

Rule for **Multiplication & Division** = Least number of **Sig Figs**

Rule for **Addition & Subtraction** = Least number of **decimal places** (highest value)

Perform the following calculations and round according to the rule above.

1) $8.20 + 2 =$

2) $13.59 + 23.25 + 20 =$

3) $42.828 + 67.4629 =$

4) $53.4028 - 14 =$

5) $39.3 - 0.804 =$

6) $91.68 - 19.1 =$

1) $7.6 \times 21.9 =$

2) $2.15 \times 3.1 \times 100 =$

3) $5.00009 \times 0.06 =$

4) $38 / 7 =$

5) $500\ 009 / 17.000 =$

6) $500\ 000 / 5.002 =$

1) $334.54 + 198 =$ _____

5) $349 + 1.10 + 100 =$ _____

2) $34.1 / 1.1 =$ _____

6) $450 / 114 =$ _____

3) $2.11 \times 10^3 / 34 =$ _____

7) $298.01 + 34.112 =$ _____

4) $0.0010 - 0.11 =$ _____

8) $84 \times 31.221 =$ _____

Naming Acids Worksheet

Write the formula for each of the acids listed below:

Nitric acid	
Hydrocyanic acid	
Chloric acid	
Acetic acid	
Hydrobromic acid	
Sulfurous acid	
Chlorous acid	
Boric acid	
Hydrochloric acid	
Phosphoric acid	
Nitrous acid	
Hydrofluoric acid	
Perchloric acid	
Hydroiodic acid	
Phosphorous acid	
Carbonic acid	
Sulfuric acid	
Formic acid	

Name each of the following acids:

HClO ₄	
HCOOH	
H ₃ PO ₄	
HCl (aq)	
H ₃ BO ₃	
H ₂ SO ₄	
HNO ₂	
HI (aq)	
CH ₃ COOH	
HF (aq)	
H ₃ PO ₃	
HCN (aq)	
HClO ₃	
H ₂ CO ₃	
H ₂ SO ₃	
HClO ₂	
HNO ₃	
HBr	