

## Significant Figures Practice

1. Indicate how many significant figures there are in the following numbers.

- a. 1230.1 \_\_\_\_\_
- b. 12.450 \_\_\_\_\_
- c. 0.000123 \_\_\_\_\_
- d. 10000 \_\_\_\_\_
- e. 14.5601000 \_\_\_\_\_
- f. .0000123000 \_\_\_\_\_
- g. 1200 \_\_\_\_\_
- h. 14600 \_\_\_\_\_
- i. 56.800 \_\_\_\_\_

*Self-Check: Add your answers together. If you get 39, you most likely got the correct answers!*

2. Round the following numbers to three significant figures.

- a. 12345 \_\_\_\_\_
- b. 165.79800 \_\_\_\_\_
- c. 579327000 \_\_\_\_\_
- d. 0.000016269800 \_\_\_\_\_
- e. 84592000 \_\_\_\_\_
- f. 18.31000 \_\_\_\_\_
- g. 273,973.21 \_\_\_\_\_
- h. 0.9978 \_\_\_\_\_
- i. 0.99979 \_\_\_\_\_

Note: Make sure that you didn't completely change the identity of the number. For example, the answer to "a" is not 123, it's 12300.

3. Perform the following mathematical operations, rounding your answers to the correct number of significant digits:

1.  $128.450 * 483.0 =$  \_\_\_\_\_ (the answer is not 62041.35)

2.  $680000 / 0.00032 =$  \_\_\_\_\_ (not 212500000)

3.  $120560 / 568000 * 0.001 =$  \_\_\_\_\_ (not  $2.12253211 \times 10^{-4}$ )

Name : \_\_\_\_\_

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Date : \_\_\_\_\_

## How Many Significant Digits for Each Number?

1) 0.0023 = \_\_\_\_\_

11) 1860 = \_\_\_\_\_

2)  $9.2 \times 10^{-1}$  = \_\_\_\_\_

12) 40 = \_\_\_\_\_

3) 6400 = \_\_\_\_\_

13)  $4 \times 10^{-4}$  = \_\_\_\_\_

4) 4705 = \_\_\_\_\_

14)  $6.30 \times 10^{-4}$  = \_\_\_\_\_

5)  $9.100 \times 10^3$  = \_\_\_\_\_

15)  $9.241 \times 10^{-7}$  = \_\_\_\_\_

6) 0.387 = \_\_\_\_\_

16)  $9 \times 10^{-8}$  = \_\_\_\_\_

7) 0.08340 = \_\_\_\_\_

17) 6000 = \_\_\_\_\_

8)  $8.44 \times 10^{-9}$  = \_\_\_\_\_

18) 0.072 = \_\_\_\_\_

9) 0.02660 = \_\_\_\_\_

19) 406 = \_\_\_\_\_

10) 0.00050 = \_\_\_\_\_

20) 0.0850 = \_\_\_\_\_

For zeros which are not significant, explain why.



Name : \_\_\_\_\_

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**Solve the Problems and Round Accordingly.**

1)  $26.874 + 15.9671 + 8.66 = \underline{\hspace{2cm}}$

11)  $28.696 + 75.15 + 2.825 = \underline{\hspace{2cm}}$

2)  $9.99 + 91.36 = \underline{\hspace{2cm}}$

12)  $1.8 + 6.577 + 8.7268 = \underline{\hspace{2cm}}$

3)  $5.8416 + 87.51 = \underline{\hspace{2cm}}$

13)  $4.6 + 43.1295 = \underline{\hspace{2cm}}$

4)  $73.12 + 94.214 + 1.131 = \underline{\hspace{2cm}}$

14)  $92.71 + 95.2 + 6.287 = \underline{\hspace{2cm}}$

5)  $9.97 - 3.461 = \underline{\hspace{2cm}}$

15)  $4.3 - 3.992 = \underline{\hspace{2cm}}$

6)  $9.148 + 41.68 = \underline{\hspace{2cm}}$

16)  $26.976 - 6.1 = \underline{\hspace{2cm}}$

7)  $52.3 - 8.5166 = \underline{\hspace{2cm}}$

17)  $7.1784 - 2.35 = \underline{\hspace{2cm}}$

8)  $18.2141 + 28.991 = \underline{\hspace{2cm}}$

18)  $93.5 - 1.338 = \underline{\hspace{2cm}}$

9)  $3.3818 + 39.479 = \underline{\hspace{2cm}}$

19)  $8.3 + 49.98 + 74.5154 = \underline{\hspace{2cm}}$

10)  $7.7463 - 2.3 = \underline{\hspace{2cm}}$

20)  $54.65 + 83.7557 + 5.3267 = \underline{\hspace{2cm}}$



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**Solve the Problems and Round Accordingly.**

1)  $30 \times 3.2 = \underline{\hspace{2cm}}$       11)  $500 \times 60 = \underline{\hspace{2cm}}$

2)  $0.07 \times 99.62 \times 720 = \underline{\hspace{2cm}}$       12)  $0.037 \times 0.02 = \underline{\hspace{2cm}}$

3)  $0.07 \times 30 \times 5000 = \underline{\hspace{2cm}}$       13)  $81 \times 0.61 = \underline{\hspace{2cm}}$

4)  $9.86 \times 0.027 = \underline{\hspace{2cm}}$       14)  $6.3 \times 1.55 = \underline{\hspace{2cm}}$

5)  $50 \times 0.06 = \underline{\hspace{2cm}}$       15)  $19.178 \times 0.03 = \underline{\hspace{2cm}}$

6)  $0.0043 \times 34 \times 6007 = \underline{\hspace{2cm}}$       16)  $26.756 \times 0.0056 \times 100 = \underline{\hspace{2cm}}$

7)  $0.0069 \times 75.0 = \underline{\hspace{2cm}}$       17)  $54.862 \times 41.90 = \underline{\hspace{2cm}}$

8)  $0.086 \times 0.0047 \times 30 = \underline{\hspace{2cm}}$       18)  $9 \times 0.44 \times 3400 = \underline{\hspace{2cm}}$

9)  $2.9 \times 10 \times 200 = \underline{\hspace{2cm}}$       19)  $16 \times 23 \times 7000 = \underline{\hspace{2cm}}$

10)  $0.48 \times 26 \times 509 = \underline{\hspace{2cm}}$       20)  $41 \times 182 \times 10 = \underline{\hspace{2cm}}$

