

Significant Figures:

How many significant figures are in each of the following measurements?

1) 903.2 g 4

7) 890 m 2

2) 70.6 ml 3

8) 4900 L 2

3) 800.0 ml 4

9) 2.020 g 4

4) 0.0091 g 2

10) 70 ft 1

5) 0.040 m 2

11) 200 g 1

6) 92°C 2

12) 701.0 cm 4

Perform the following calculations using the correct number of significant figures in your answer.

13) $14.30 + 5.201 + 15.0$

34.5

least # decimal places

14) 45.9×340.0

15600

least # sig figs

15) $23.00 - 6.145$

16.86

least # decimal places

16) $720.0 \div 55.808$

12.90

least # sig figs

17) A student measured the density of iron to be 7.902 g/mL, 7.93 g/mL, and 7.914 g/mL. What would be the average density with the correct number of significant figures?

the average is limited to two decimal places b/c addition uses "least # of decimal places" rule

7.92 g/mL