RULES FOR DETERMINING # OF SIG FIGS

1. All nonzero digits are significant.

567845656 cm – 9 sig figs

2. All zeros between non-zero digits ("sandwiched") are significant.

560005 cm – 6 sig figs

3. All beginning zeros are NOT significant.

0.00000567 cm – 3 sig figs

4. Ending zeros are significant if the decimal point is actually written in but not significant if the decimal is an "understood" decimal.

260000. g – 6 sig figs

260000 g – 2 sig figs

5. All zeros after a nonzero digit *after* a decimal are significant.

0.00000567000 cm

RULES FOR ADDING/SUBTRACTING SIG FIGS

You can only have as many decimal places in your answer as the number in the problem added/subtracted that has the least number of decimal places (the "roughest" measurement added/subtracted)

RULES FOR MULTIPLYING/DIVIDING SIG FIGS

You can only have as many sig figs in your answer as the number in the problem multiplied/divided with the least number of sig figs

1. 454 *g*
2. 2. 2 *lbs*
3. 2. 205 *lbs*
4. 0. 3937 *L*
5. 0. 0353 *L* _____
6. 1. 00800 *g* _____
7. 500 *g* _____
8. 480 *f t* _____
9. 0. 0350 *kg* _____
10. 100. *cm* _____
11. 1, 000 *m* _____
12. 0. 625 *L* _____
13. 63. 4540 *mm* _____
14. 3, 060 *m* _____
15. 500. *g* _____
16. 14. 0 *mL* _____
17. 1030 *g* _____
18. 9, 700 *g* _____
19. 125, 000 *m* _____
20. 12, 030. 7210 *g* _____
21. 0. 0000000030 *cm* _____
22. 0. 002 *m* _____
23. 0. 0300 *cm* _____
24. 1. 00 *L* _____
25. 0. 025 *m/s* _____
26. 0. 100 *kg* _____
27. 0. 00300 *km* _____
28. 303. 0 *g* _____
29. 250 *g* _____
30. 1, 000. *m* _____

1.

$$\begin{array}{r} 703\ g \\ 7\ g \\ +\ 0.66\ g \end{array}$$

2.

$$\begin{array}{r} 5.624\ ft \\ 0.24\ ft \\ +\ 16.8\ ft \end{array}$$

3.

$$\begin{array}{r} 34\ kg \\ -\ 0.2\ kg \end{array}$$

4.

$$\begin{array}{r} 18.7\ m \\ +\ 0.009\ m \end{array}$$

5. Add $65.23\ cm$, $2.666\ cm$, and $10\ cm$.

6. Multiply $2.21\ cm$ and $0.3\ cm$.

7. Multiply: $(2.002\ cm)(84\ cm)$

8. Multiply: $(107.888\ cm)(0.060\ cm)$

9. Divide $72.4\ cm$ by $0.0000082\ cm$.

10. Multiply $0.32\ cm$ by $600\ cm$ and then divide the product by $8.21\ cm$.