

For this entire worksheet, only use scientific notation if it is necessary for showing the correct number of sig. figs.

1. Addition and Subtraction! Perform the following operations, and then report the answer to the correct number of significant figures.

Calculator Answer: **Correct sig. fig. answer:**

$$95.13 - 86.93 = 8.2 \quad \underline{\hspace{2cm}}$$

$$1.4571 + 10.296 = 11.7531 \quad \underline{\hspace{2cm}}$$

$$3.1222 - 2.40 = 0.7222 \quad \underline{\hspace{2cm}}$$

$$3.481 - 1.381 = 2.1 \quad \underline{\hspace{2cm}}$$

$$15.0 + 1.28387 = 16.28387 \quad \underline{\hspace{2cm}}$$

$$15 + 1.28387 = 16.28387 \quad \underline{\hspace{2cm}}$$

$$15 + 1.72134 = 16.72134 \quad \underline{\hspace{2cm}}$$

$$23.17 - 23.06 = 0.11 \quad \underline{\hspace{2cm}}$$

$$23.17 - 23.07 = 0.1 \quad \underline{\hspace{2cm}}$$

$$163.43 + 1.4 = \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

$$126 - 3.9 = \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

$$143 + 17 = \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

$$108.77 - 105.38 = 3.39 \quad \underline{\hspace{2cm}}$$

$$108.77 - 105.37 = 3.4 \quad \underline{\hspace{2cm}}$$

$$108.77 - 98.1202 = 10.6498 \quad \underline{\hspace{2cm}}$$

2. Multiplication and division! Perform the following operations, and then report the answer to the correct number of significant figures.

Calculator Answer: **Correct sig. fig. answer:**

$$630.2 \text{ g} / 703.9 \text{ mL} = 0.895297628 \quad \underline{\hspace{2cm}}$$

$$(7.86 \text{ g/mL}) * (4.55 \text{ mL}) = 35.763 \quad \underline{\hspace{2cm}}$$

$$81.97 / 10.1 = 8.115841584 \quad \underline{\hspace{2cm}}$$

$$10000. / 2500. = 4 \quad \underline{\hspace{2cm}}$$

$$10000. / 25 = 400 \quad \underline{\hspace{2cm}}$$

$$112.8 \times 0.13 = 14.664 \quad \underline{\hspace{2cm}}$$

$$26 \times 5.486 \quad \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

$$486 / 162 \quad \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

$$6000. / 600. \quad \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

$$62.28 * 81.9 = 5100.732 \quad \underline{\hspace{2cm}}$$

3. Mixed Practice!

Perform the following operations, and then report the answer to the correct number of significant figures.

| | <i>Calculator Answer:</i> | <i>Correct sig. fig. answer:</i> |
|---------------------|---------------------------|----------------------------------|
| $98.16 - 92.178$ | $= 5.982$ | _____ |
| $92.178 / 98.16$ | $= 0.9390586797$ | _____ |
| $31.88 / 31.9$ | _____ | _____ |
| $3.3 + 8.2$ | _____ | _____ |
| $3.3 * 8.2$ | _____ | _____ |
| $3.3 / 8.2$ | _____ | _____ |
| $990. / 330.$ | _____ | _____ |
| $990. - 330.$ | _____ | _____ |
| $9900 / 33$ | _____ | _____ |
| $53.222 + 9.48$ | _____ | _____ |
| $62.14 + 71.26$ | _____ | _____ |
| $62.14 / 71.26$ | _____ | _____ |
| $62.14 / 31.07$ | _____ | _____ |
| 12.5×160.0 | $= 2000$ | _____ |
| $117.914 - 116.22$ | $= 1.694$ | _____ |
| $114.3 - 17.24$ | $= 97.06$ | _____ |
| $87.49 + 9.2$ | $= 96.69$ | _____ |
| $25.3 / .00253$ | $= 10000$ | _____ |