

Simplify each of the following.

1. $5.39 + 9.29$

$$\begin{array}{r} 5.39 \\ + 9.29 \\ \hline 14.68 \end{array}$$

$5.39 + 9.29 = 14.68$

2. $93.98 - 4.32$

$$\begin{array}{r} 93.98 \\ - 4.32 \\ \hline 89.66 \end{array}$$

$93.98 - 4.32 = 89.66$

3. $100 - 423.43$

$$\begin{array}{r} 100.00 \\ - 423.43 \\ \hline -323.43 \end{array}$$

$100 - 423.43 = -323.43$

4. 8.32×3.3

$$\begin{array}{r} 8.32 \\ \times 3.3 \\ \hline 2496 \\ + 24960 \\ \hline 27456 \end{array}$$

$8.32 \times 3.3 = 27.456$

5. $5.34 \div 4.3$

$$4.3 \overline{) 5.34}$$

Moving the decimals:

$$\begin{array}{r} 1.241 \\ 43 \overline{) 53.400} \\ -43 \\ \hline 104 \\ -86 \\ \hline 180 \\ -172 \\ \hline 80 \end{array}$$

1.241 rounds to 1.24

$5.34 \div 4.3 \approx 1.24$

6. $2.8 - 3.4 \times 6.8$

Start with -3.4×6.8 :

$$\begin{array}{r} 3.4 \\ \times 6.8 \\ \hline 272 \\ + 2040 \\ \hline 2312 \end{array}$$

$-3.4 \times 6.8 = -23.12$

Problem is now:

$2.8 - 23.12$

$$\begin{array}{r} 2.312 \\ - 2.80 \\ \hline 2032 \end{array}$$

$2.8 - 23.12 = -20.32$

7. $8.6 \times 6.8 \times 4.2 - 3$

Start with 8.6×6.8 :

$$\begin{array}{r} 8.6 \\ \times 6.8 \\ \hline 688 \\ + 5160 \\ \hline 58.48 \end{array}$$

Problem is now:

$58.48 \times 4.2 - 3$

Now do 58.48×4.2 :

$$\begin{array}{r} 58.48 \\ \times 4.2 \\ \hline 11696 \\ + 233920 \\ \hline 245.616 \end{array}$$

Problem is now:

$245.616 - 3$

$$\begin{array}{r} 245.616 \\ - 3.000 \\ \hline 242.616 \end{array}$$

242.616

$8.6 \times 6.8 \times 4.2 - 3 = 242.616$

8. $0.84(-0.38) + |(-0.18 \div 0.3)|$

Start with $0.84(-0.38)$:

$$\begin{array}{r} 0.84 \\ \times 0.38 \\ \hline 672 \\ + 2520 \\ \hline 0.3192 \end{array}$$

$0.84(-0.38) = -0.3192$

Problem is now:

$-0.3192 + |(-0.18 \div 0.3)|$

Next is $-0.18 \div 0.3$:

$0.3 \overline{) 0.18}$

Moving the decimals:

$$\begin{array}{r} 0.6 \\ 3 \overline{) 1.8} \\ -18 \\ \hline 0 \end{array}$$

$-0.18 \div 0.3 = -0.6$

Problem is now:

$-0.3192 + |-0.6|$

$= -0.3192 + 0.6$

$$\begin{array}{r} 0.6000 \\ - 0.3192 \\ \hline 0.2808 \end{array}$$

$0.84(-0.38) + |(-0.18 \div 0.3)| = 0.2808 \approx 0.28$