# Review Exercise Set 33

Exercise 1: Convert 19 cups into quarts.

Exercise 2: Add 3 gallons 1 quart and 2 gallons 2 quarts.

Exercise 3: Subtract 2 cups 5 fluid ounces from 5 cups 3 fluid ounces.

Exercise 4: Divide 7 gallons 2 quarts by 3.

Exercise 5: Add $1\frac{2}{3}$ pints and $2\frac{3}{4}$ pints.

# Review Exercise Set 33 Answer Key

Exercise 1: Convert 19 cups into quarts.

Conversion factor: 4 cups = 1 quart

$$19\ cups \times \frac{1\ quart}{4\ cups} = \frac{19\ quarts}{4} = 4\frac{3}{4}\ quarts$$

**The correct answer is 4 3/4 quarts**

Exercise 2: Add 3 gallons 1 quart and 2 gallons 2 quarts.

$$\begin{array}{rrr} & 3\ gallons & 1\ quart \\ + & 2\ gallons & 2\ quarts \\ \hline & 5\ gallons & 3\ quarts \end{array}$$

**The correct answer is 5 gallons and 3 quarts.**

Exercise 3: Subtract 2 cups 5 fluid ounces from 5 cups 3 fluid ounces.

$$\begin{array}{rrr} & 5\ cups & 3\ fluid\ ounces \\ - & 2\ cups & 5\ fluid\ ounces \\ \hline \end{array}$$

We do not have enough ounces in the first measurement to perform the subtraction, so we need to take 1 away from the 8 pounds and add it as 16 to the 3 ounces.

$$\begin{array}{rrr} & 5\ cups & 3\ fluid\ ounces \\ & -1\ cups & +8\ fluid\ ounces \\ \hline & 4\ cups & 11\ fluid\ ounces \end{array}$$

Now we can perform the subtraction of 3 pounds 5 ounces.

$$\begin{array}{rrr} & 4\ cups & 11\ fluid\ ounces \\ - & 2\ cups & 5\ fluid\ ounces \\ \hline & 2\ cups & 6\ fluid\ ounces \end{array}$$

**The correct answer is 2 cups 6 fluid ounces.**

Exercise 4: Divide 7 gallons 2 quarts by 3.

First setup the problem in long-division format and then divide 3 into the 7 gallons.

$$
\begin{array}{r}
2\ gallons \\
\hline
3\big)\ 7\ gallons \quad 2\ quarts \\
-\ 6\ gallons \\
\hline
1\ gallon \quad 2\ quarts
\end{array}
$$

Now we need to convert the 1 gallon into quarts so that it can be combined with the 2 quarts. To do this, we will subtract 1 gallon and add 4 quarts.

$$
\begin{array}{r}
2\ gallons \\
\hline
3\big)\ 7\ gallons \quad 2\ quarts \\
-\ 6\ gallons \\
\hline
1\ gallon \quad 2\ quarts \\
-1\ gallon \quad +\ 4\ quarts \\
\hline
6\ quarts
\end{array}
$$

Finally, divide the 3 into the 6 quarts.

$$
\begin{array}{r}
2\ gallons \quad 2\ quarts \\
\hline
3\big)\ 7\ gallons \quad 2\ quarts \\
-\ 6\ gallons \\
\hline
1\ gallon \quad 2\ quarts \\
-1\ gallon \quad +\ 4\ quarts \\
\hline
6\ quarts \\
-\ 6\ quarts \\
\hline
0
\end{array}
$$

**The quotient would be 2 gallons 2 quarts.**

Exercise 5: Add $1\frac{2}{3}$ pints and $2\frac{3}{4}$ pints.

$$
\begin{aligned}
&1\frac{2}{3}\text{ pints} + 2\frac{3}{4}\text{ pints} \\
&= \frac{5}{3}\text{ pints} + \frac{11}{4}\text{ pints} \\
&= \frac{20}{12}\text{ pints} + \frac{33}{12}\text{ pints} \\
&= \frac{53}{12}\text{ pints} \\
&= 4\frac{5}{12}\text{ pints}
\end{aligned}
$$

**The correct answer would be 4 $\frac{5}{12}$ pints.**