

Review Exercise Set 32

Exercise 1: Convert 38 ounces to pounds.

Exercise 2: Multiply 2 pounds 7 ounces by 3.

Exercise 3: Add 1 ton 700 pounds and 2 tons 1500 pounds.

Exercise 4: Subtract 3 pounds 5 ounces from 8 pounds 3 ounces.

Exercise 5: Divide 9 pounds 4 ounces by 4.

Review Exercise Set 32 Answer Key

Exercise 1: Convert 38 ounces to pounds.

Conversion factor: 16 ounces = 1 pound

$$38 \text{ ounces} \times \frac{1 \text{ pound}}{16 \text{ ounces}} = \frac{38 \text{ pounds}}{16} = 2 \frac{6}{16} \text{ pounds} = 2 \frac{3}{8} \text{ pounds}$$

The correct answer is 2 3/8 pounds

Exercise 2: Multiply 2 pounds 7 ounces by 3.

$$\begin{array}{r} 2 \text{ pounds} \quad 7 \text{ ounces} \\ \quad \quad \quad \times \quad 3 \\ \hline 6 \text{ pounds} \quad 21 \text{ ounces} \end{array}$$

Since we have more than 16 ounces we can subtract 16 from the ounces and add it as 1 to the pounds.

$$\begin{array}{r} 6 \text{ pounds} \quad 21 \text{ ounces} \\ + 1 \text{ pound} \quad - 16 \text{ ounces} \\ \hline 7 \text{ pounds} \quad 5 \text{ ounces} \end{array}$$

The correct answer is 7 pounds 5 ounces

Exercise 3: Add 1 ton 700 pounds and 2 tons 1500 pounds.

Conversion factor: 1 ton = 2,000 pounds

$$\begin{array}{r} 1 \text{ ton} \quad 700 \text{ pounds} \\ + 2 \text{ tons} \quad 1500 \text{ pounds} \\ \hline 3 \text{ tons} \quad 2200 \text{ pounds} \end{array}$$

To simplify the answer we need to subtract 2000 pounds and add it as 1 to the tons.

$$\begin{array}{r} 3 \text{ tons} \quad 2200 \text{ pounds} \\ + 1 \text{ tons} \quad - 2000 \text{ pounds} \\ \hline 4 \text{ tons} \quad 200 \text{ pounds} \end{array}$$

The correct answer is 4 tons 200 pounds.

Exercise 4: Subtract 3 pounds 5 ounces from 8 pounds 3 ounces.

$$\begin{array}{r} 8 \text{ pounds } 3 \text{ ounces} \\ - 3 \text{ pounds } 5 \text{ ounces} \\ \hline \end{array}$$

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.

$$\begin{array}{r} 8 \text{ pounds } 3 \text{ ounces} \\ - 1 \text{ pound } + 16 \text{ ounces} \\ \hline 7 \text{ pounds } 19 \text{ ounces} \end{array}$$

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

$$\begin{array}{r} 7 \text{ pounds } 19 \text{ ounces} \\ - 3 \text{ pounds } 5 \text{ ounces} \\ \hline 4 \text{ pounds } 14 \text{ ounces} \end{array}$$

The correct answer is 4 pounds 14 ounces.

Exercise 5: Divide 9 pounds 4 ounces by 4.

First setup the problem in long-division format and then divide 4 into the 9 pounds.

$$\begin{array}{r} 2 \text{ pounds} \\ 4 \overline{)9 \text{ pounds } 4 \text{ ounces}} \\ - 8 \text{ pounds} \\ \hline 1 \text{ pound } 4 \text{ ounces} \end{array}$$

Now we need to convert the 1 pound into ounces so that it can be combined with the 4 ounces. To do this, we will subtract 1 pound and add 16 ounces.

$$\begin{array}{r} 2 \text{ pounds} \\ 4 \overline{)9 \text{ pounds } 4 \text{ ounces}} \\ - 8 \text{ pounds} \\ \hline 1 \text{ pound } 4 \text{ ounces} \\ - 1 \text{ pound } + 16 \text{ ounces} \\ \hline 20 \text{ ounces} \end{array}$$

Exercise 5 (Continued):

Finally, divide the 4 into the 20 ounces.

$$\begin{array}{r} 2 \text{ pounds} \quad 5 \text{ ounces} \\ 4 \overline{) 9 \text{ pounds} \quad 4 \text{ ounces}} \\ \underline{- 8 \text{ pounds}} \\ 1 \text{ pound} \quad 4 \text{ ounces} \\ \underline{- 1 \text{ pound} \quad + 16 \text{ ounces}} \\ \phantom{1 \text{ pound}} 20 \text{ ounces} \\ \underline{- 20 \text{ ounces}} \\ 0 \end{array}$$

The quotient would be 2 pounds 5 ounces.