Applied Division Problems With Fractions  (5.NF.7c)
Solve each problem and write your answer in the solution box. Be sure to include the units in your answer.

#1
Solution:

There are four gallons of milk.

How many $\frac{1}{2}$ gallons of milk are there?

#2
Solution:

Diana practices the piano for 3 hours each week. She practices $\frac{1}{2}$ an hour on each of the days that she practices. How many days does Diana practice each week?

#3
Solution:

How many $\frac{1}{3}$ cup servings fit in the measuring cup shown below?

#4
Solution:

Anna is making a gallon of iced tea, which requires 6 cups of iced tea mix. She only has a $\frac{1}{4}$ cup measuring tool. How many $\frac{1}{4}$ cup scoops of iced tea mix does Anna need?

#5
Solution:

A father took a bite of a candy bar that left only $\frac{3}{5}$ for his children. He split the remaining amount between his two children. What fraction of the entire candy bar did each child receive?

#6
Solution:

Samara has 5 yards of ribbon. She wants to cut the ribbon into pieces that are each $\frac{1}{4}$ of a yard long. How many pieces of ribbon will Samara have?
The Greenberg Community Center is sponsoring a \( \frac{1}{2} \) mile race. There are 6 water stations spread equally over the course of the race. What is the distance between water stations?

### Solution:

Number of water stations is divided equally over the course of the race.

\[
\text{Distance between water stations} = \frac{\frac{1}{2}}{6} = \frac{1}{12} \text{ mile}
\]

Caleb bought 2 pounds of trail mix in a large bag. He wants to put a \( \frac{1}{8} \) of a pound serving of the trail mix into small bags. How many small bags of trail mix will Caleb have?

### Solution:

Number of servings: 

\[
\text{Number of servings} = \frac{2 \text{ pounds}}{\frac{1}{8} \text{ pound/serving}} = 16 \text{ servings}
\]

At the end of the day, a bakery had \( \frac{3}{8} \) of a pie left over. The 3 employees each took home the same amount of leftover pie. How much pie did each employee take home?

### Solution:

\[
\text{Pie per employee} = \frac{\frac{3}{8}}{3} = \frac{1}{8} \text{ pie}
\]

How many quarters are in twenty dollars?

### Solution:

Number of quarters in twenty dollars: 

\[
\text{Number of quarters} = \frac{20 \text{ dollars}}{0.25 \text{ dollars/quarter}} = 80 \text{ quarters}
\]
**Applied Division Problems With Fractions**

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(5.NF.7c)

1. **Solution:**
   A family has 3 boxes of thin min Girl Scout cookies. Each box is separated into two equal packs. How many of these packs are in all three boxes?

2. **Solution:**
   Lucy baked a loaf of banana bread. She took half of the loaf to school. She wants to share the banana bread equally among 6 friends, *without* keeping any for herself. What fraction of the loaf will each friend get?

3. **Solution:**
   Jamal ordered 4 pizzas. How many slices of pizza did Jamal order if each slice is \( \frac{1}{8} \) of a pizza?

4. **Solution:**
   A piece of lumber for building a house is eight feet long. How many pieces that have a length of \( \frac{1}{2} \) a foot can be made from the wood?

5. **Solution:**
   How many \( \frac{1}{4} \) cup servings are in 2 cups of chopped nuts?

6. **Solution:**
   A farmer mows one-fifth of an acre each day. If his property has three acres, how many days will it take to mow it all?
How much milk will each friend get if 3 friends share \( \frac{1}{4} \) of a gallon equally?

Mr. Farmer bought a block of fudge that weighed \( \frac{1}{2} \) of a pound. He cut the fudge into 2 equal pieces. What was the weight of each piece of fudge?

Denise divided \( \frac{1}{2} \) pound of butter into 4 equal parts. How much butter was in each part?

The length of a running trail in a park is 12 miles long. There are lampposts placed every \( \frac{1}{4} \) mile. How many lampposts are along the running trail?
**Applied Division Problems With Fractions**

Solve each problem and write your answer in the solution box. Be sure to include the units in your answer.

**Problem 1**
A plumber is using a pipe that is 8 inches long. He needs to cut the pipe into smaller pieces that are all \( \frac{1}{3} \) of inch long. How many pieces will he be able to create?

**Solution:****

**Problem 2**
At the end of the night, Fredi’s Pizza had \( \frac{9}{10} \) of a pizza left over. The two employees each took home the same amount of leftover pizza. How much pizza did each employee take home?

**Solution:**

**Problem 3**
A furniture maker used \( \frac{1}{2} \) of a can of paint to paint five chairs. He used the same amount of paint for each chair. How much paint did he use for each chair?

**Solution:**

**Problem 4**
How many scoops of the cup below would it take to fill a recipe that calls for 4 cups of milk?

**Solution:**
For the food drive, the 5th Grade has a goal of collecting half a ton of canned goods. If the six classes contribute equally, what fraction of a ton will each class collect?

Miss Wright bought a block of cheese. The block weighed \( \frac{1}{3} \) of a pound. She cut the block up into 4 equal slices. What was the weight of each slice?
Applied Problems With Fractions

(5.NF.7c)

Solve each problem and write your answer in the solution box. Be sure to include the units in your answer.

#1
Daniel has a piece of wire that is a fifth of a yard long. He cuts the wire into three equal pieces.

What fraction of a yard is each piece?

Solution:

#2
Michelle wants to make four equal pieces from a ribbon that is a quarter of a yard long.

How long will each of the smaller pieces be?

Solution:

#3
For the food drive, the 5th Grade has a goal of collecting half a ton of canned goods.

If the eight classes contribute equally, what fraction of a ton will each class collect?

Solution:

#4
Jacob has a board that is four feet long. He cuts the board into pieces that are \( \frac{1}{6} \) of a foot long.

How many pieces does Jacob have now?

Solution:

#5
Two athletes are training together. They have one sixth of a gallon of water remaining.

By sharing the water equally, what fraction of a gallon does each person receive?

Solution:

#6
Brad has 9 pounds of ground turkey to make turkey burgers for a picnic.

How many \( \frac{1}{3} \) pound turkey burgers can he make?

Solution:
#7

Robert divides 8 cups of almonds into $\frac{1}{8}$ cup servings.

What fraction of a gallon of orange juice does each friend get?

Solution:

#8

Elizabeth has 6 cups of raisins. She divides the raisins into $\frac{1}{3}$ cup servings.

How many servings does she have?

Solution:

#9

Mr. Nagy wants to create six equally sized regions using only half of the gym.

What fraction of the entire gym will be used for each region?

Solution:

#10

Tuan Le has 4 submarine sandwiches. He cuts each sandwich into fifths.

How many pieces does he then have?

Solution:

#11

A road crew paves $\frac{1}{4}$ mile of road each day.

How many days will it take the crew to pave six miles?

Solution:

#12