

Prompt: Create word problems using arithmetic operation on fractions. Create 5 easy, 5 moderate, 5 difficult problems.

Prompt2: Solve all these problems

Do these (write using pen; don't type) following the steps we described in class. Use variables to describe different parts of the problem, and the solution in terms of those variables (Eg: solution for problem 1) . And then compute the values. Include units of measurement in each step.

Easy

1. Sarah ate $\frac{1}{4}$ of a pizza, and John ate $\frac{1}{8}$ of the same pizza. What fraction of the pizza did they eat altogether?

Amount Sarah ate $X = \frac{1}{4}$ pizza

Amount John ate $Y = \frac{1}{8}$ pizza

Amount they both ate $= X + Y = (\frac{1}{4} + \frac{1}{8})$ pizza $= \frac{5}{8}$ pizza

Fraction of pizza they ate $= \frac{5}{8}$ of pizza, so fraction is $\frac{5}{8}$

2. A recipe calls for $\frac{1}{3}$ cup of sugar. If you want to make half the recipe, how much sugar do you need?

3. Tom has $\frac{2}{5}$ of a candy bar. He gives $\frac{1}{5}$ of the candy bar to his friend. How much of the candy bar does Tom have left?

4. A water bottle is $\frac{3}{4}$ full. If you drink $\frac{1}{4}$ of the water in the bottle, how much water is left?

5. A garden is divided into 6 equal parts. If $\frac{1}{6}$ of the garden is used for tomatoes and another $\frac{1}{6}$ is used for peppers, what fraction of the garden is used for vegetables?

Moderate

1. Mary walked $2\frac{1}{2}$ miles on Monday and $1\frac{3}{4}$ miles on Tuesday. How many miles did she walk in total?

2. A baker has $5\frac{1}{3}$ cups of flour. A recipe requires $2\frac{2}{3}$ cups of flour. How much flour will the baker have left after making the recipe?

3. John has $\frac{3}{5}$ of an acre of land. He wants to divide it into 4 equal parts. What fraction of an acre will each part be?

4. A paint can is $\frac{7}{8}$ full. If you use $\frac{1}{3}$ of the paint in the can, what fraction of the can will be left?

5. A construction team is building a road that is 10 miles long. They have completed $4\frac{2}{3}$ miles. How many more miles do they need to complete?

Difficult

1. A tank is $\frac{3}{5}$ full of water. If $\frac{1}{3}$ of the water is removed, what fraction of the tank is still full?
2. A recipe calls for $2\frac{1}{4}$ cups of flour and $1\frac{1}{2}$ cups of sugar. If you want to triple the recipe, how many cups of flour and sugar will you need in total?

3. A piece of wood is $8\frac{1}{2}$ feet long. It needs to be cut into pieces that are $1\frac{1}{4}$ feet long. How many pieces can be cut from the wood?

4. A farmer has $\frac{7}{8}$ of his land planted. He plants $\frac{2}{3}$ of the planted area with corn. What fraction of the total land is planted with corn?

5. A group of students is working on a project. $\frac{1}{4}$ of the students work on research, $\frac{2}{5}$ work on design, and the rest work on testing. What fraction of the students work on testing?