

Math 215 Fraction Word Problems

Solve these problems in “nontraditional” ways. In other words, try to solve them the way a student might who has a basic understanding of fractions, but does not know all the “algorithms”. Be sure to clearly show your work and your reasoning.

1. If Aline wants to make ribbons that are each $3\frac{3}{4}$ inches long, how many ribbons can she make from 4 yards of ribbon? How much ribbon (if any) will she have left over?
2. How many Public Service Announcements can be made in 35 minutes of air time if each PSA takes $1\frac{1}{2}$ minutes?
3. Patrick was given a bag of sour worms and estimated that someone else (Dawn?) had already eaten $\frac{1}{3}$ of the bag of worms. Patrick didn't want any, and he passed the bag to Vanessa. If Vanessa then ate $\frac{3}{4}$ of what she was given, how much of the bag of worms remained?
4. Cassandra likes Nestle Crunch bars, but makes sure that she eats exactly $\frac{5}{8}$ of one bar every time. If she does this 15 times, how many whole Nestle Crunch bars could she make with the leftover pieces?
5. Suppose $\frac{5}{8}$ of the students in a math class prefer chocolate candies over non-chocolate treats. How many of them voted against chocolate if there are 24 students in the class?
6. If Wyatt needs pieces of string that are each $5\frac{3}{4}$ inches long, how many such pieces can she make from a 2 yard long piece of string? How much string, if any, will she have left over?
7. Mrs. Smith makes one regular sized blueberry pie for her family and then makes three small ones for kids in the neighborhood. If the regular sized pie requires 2 cups of berries, and the smaller pies are each $\frac{2}{3}$ as big as the regular sized pie, how many total cups of berries does Mrs. Smith need?

8. Sammy's recipe calls for $\frac{2}{3}$ cup of butter, but she only has $\frac{1}{2}$ cup. Assuming she has enough of all the other ingredients, what portion of a whole recipe can Sammy make?
9. Janet first put $\frac{3}{4}$ of a cup of butter in the sauce she is making. Then Janet added another $\frac{1}{3}$ of a cup of butter. How much butter is in Janet's sauce?
10. A math teacher's breakfast recipe calls for $\frac{1}{2}$ of a cup of oatmeal cereal. She wants to cut it back to $\frac{1}{3}$ of a cup. How would she need to cut back all the other ingredients in her recipe if she wants the proportions of all the ingredients to remain the same?
11. Megan has $35\frac{1}{2}$ yards of material available to make shirts. Each shirt requires $\frac{3}{8}$ of a yard of material.
- (a) How many whole shirts can she make?
 - (b) How much (if any) material will be left over?
 - (c) What fraction of a shirt could Megan make with the leftover material?