

Applying Your Division Skills

Word problems with division of fractions are tricky because you need to invert the correct number. Remember that the amount being *divided*, *cut*, or *shared* must be written to the *left* of the \div sign. For example, if $5\frac{1}{2}$ pounds of peanuts are to be divided equally among three people, write $5\frac{1}{2}$ first. The problem becomes $5\frac{1}{2} \div 3$. The number on the *right* gets inverted.

Solve and write the correct label, such as pounds or inches, next to each answer. Reduce each answer to lowest terms. Read each problem carefully. Some problems require operations other than division.

1. How many pieces of wood each $7\frac{1}{2}$ inches long can be cut from a board that is 45 inches long?
2. Sandy baked $4\frac{1}{2}$ pounds of cookies. She divided the cookies equally among two friends and herself. How many pounds of cookies did each person get?
3. A tailor needs $3\frac{2}{3}$ yards of material to make a suit. How many suits can she make from 22 yards of material?
4. How many $1\frac{1}{2}$ -pound loaves of bread can be made from 9 pounds of dough?
5. How many $\frac{3}{4}$ -pound cans of tomatoes can be filled with 24 pounds of tomatoes?
6. To make picture frames, Carlos plans to cut a piece of wooden molding 75 inches long into small strips each $8\frac{1}{3}$ inches long. Assuming there is no waste, how many strips can he cut from the long piece?
7. Sarah needs $2\frac{1}{4}$ yards of material to make a dress for her daughter. How many dresses can she make from $10\frac{1}{2}$ yards of material?
8. On a quiz Adriano got $\frac{7}{8}$ of the problems correct. He had 21 problems correct. How many problems were on the test?

9. Jenny has paid $\frac{1}{4}$ of her car loan. So far she has paid \$900. What was the total amount of the loan?
3600
10. In the last problem, how much does Jenny still owe on her car loan?
2700
11. On a snowy evening only $\frac{2}{3}$ of the registered students in Bob's chess class came to school. Eighteen students attended that night. How many students are registered in Bob's class?
27
12. In the last problem, how many of the registered students were absent on the snowy evening?
7
13. Workers in a factory were asked if they thought safety conditions were adequate. Ninety of the workers answered that they thought conditions were satisfactory. They represent $\frac{3}{5}$ of all the workers who were questioned. How many workers were questioned?
14. In the last problem, how many of the workers did not think that safety conditions were adequate?
15. On the first day of the fishing season, Jed caught $10\frac{1}{2}$ pounds of trout. He decided to keep half of the amount for himself. How many pounds of trout did he keep?
16. In the last problem, Jed gave the remaining trout to three friends. If they each got the same weight, how much trout did each receive?
17. The budget of $\$1\frac{1}{2}$ million to renovate a school gym will be shared equally between the state and the local community. How much does the local community have to pay for the renovation?
18. In the last problem, the school expects to get $\frac{1}{3}$ of the amount that the community owes for the gym renovation from donations. The rest will come from taxes. How much will the community have to raise in taxes?