

Practice solving these multiplication and division word problems using a diagram.

1. A can holds $1\frac{2}{3}$ cups of tomato sauce. How much tomato sauce is in $1\frac{1}{4}$ cans?
2. I have $\frac{3}{4}$ liters of soda. That's $\frac{2}{3}$ of a serving. How much soda is in one serving?
3. I have $2\frac{5}{6}$ cups of pancake mix. A batch takes $1\frac{1}{4}$ cups of mix. How many batches of pancakes can I make?
4. I have $2\frac{2}{3}$ yards of string. That's enough to go around the table $1\frac{1}{2}$ times. How many yards of string do I need to go around the table once?
5. A tube of paint holds $1\frac{1}{3}$ ounces. How much paint is in $\frac{2}{3}$ of a tube of paint?
6. I have $\frac{2}{3}$ cups of soda. A serving is $\frac{3}{4}$ cup. How many servings do I have?

7. I have $2\frac{1}{2}$ yards of fabric. It takes $\frac{2}{3}$ yard of fabric to make a cub scout flag. How many flags can I make?
8. A bag of candy weighs $1\frac{1}{2}$ lbs. How much does $\frac{3}{5}$ of a bag of candy weigh?
9. I have $2\frac{1}{3}$ cups of water. That fills the jar $\frac{5}{8}$ of the way full. How much water would it take to fill the jar?
10. A bottle has $\frac{2}{3}$ of a quart of juice in it. How much juice is in $2\frac{1}{5}$ bottles?
11. I have $2\frac{1}{2}$ ounces of dye. It takes $\frac{3}{5}$ ounce of dye to dye 1 yard of fabric. How many yards of fabric can I dye?
12. I have $2\frac{1}{4}$ pounds of apples. That's enough to make $1\frac{3}{5}$ jars of applesauce. How many apples do I need for 1 jar of applesauce?

13. Alice solved the problem:

Jan has 20 ounces of dried thyme. If a package of thyme weighs $\frac{3}{4}$ of an ounce, how many packages of thyme can Jan make?

by dividing: $20 \div \frac{3}{4} = 20 \times \frac{4}{3} = \frac{80}{3} = 26\frac{2}{3}$

What does 26 tell about the answer? What does $\frac{2}{3}$ tell about the answer?

14. John solved the problem $\frac{5}{4} \div \frac{1}{3}$ by drawing the following diagram:



John says that this means that the answer is $3\frac{1}{4}$. Is he correct? If not, what is the correct answer, and how does it fit with his picture?