

Study Guide: Multiplying and Dividing Fractions & Fractions

1. Ricardo is using a recipe for 4 loaves of bread that uses $\frac{2}{3}$ cups of oil. However, he only wants to make 1 loaf of bread. How many cups of oil will he need to make just 1 loaf?
2. Cheryl and Marcus are making two batches of muffins. The smaller batch is $\frac{2}{3}$ the size of the larger batch. If the larger batch uses a $\frac{3}{5}$ cup of water, how much water will they need in total?
3. 3 pizzas are cut into $\frac{1}{8}$ -sized pieces. How many total pieces are there?
4. A rain gauge measures $3\frac{5}{8}$ inches of rain one day. The next day, it measures only $\frac{3}{4}$ of the previous day. How many inches of rain did it measure the next day?
5. A farmer took $\frac{2}{3}$ of the strawberries he harvested to the market. The market, he sold $\frac{1}{4}$ of what he brought. How much of the harvest strawberries did he sell?
6. Mari has $\frac{1}{4}$ of a bag of dates left. She takes what is left and splits it into $\frac{1}{3}$ portions. If she keeps two bags, how much of the original bags has she kept?
7. A growing dinosaur capsule starts at 3 cm long. After putting it in water, it becomes $2\frac{3}{4}$ times larger. After sitting out for an hour, it becomes $\frac{1}{2}$ as large as its biggest size. How big is its final size?
8. Tina has $\frac{3}{5}$ of a pound of rice. She will use $\frac{2}{3}$ of it to make fried rice. How many pounds of rice will Tina use for fried rice?
9. A trail is $\frac{3}{4}$ of a mile long. At $\frac{5}{6}$ of the length of the trail there is lookout post. How far, in miles, is the lookout from the start of the trail?

10. Xing has 20 concrete blocks.

- a. He cuts each block into $\frac{2}{5}$ -sized pieces to create bricks. How many bricks does he have in total?
- b. Half of the bricks are further broken into $\frac{1}{3}$ -sized chunks. How many $\frac{1}{3}$ -sized chunks are there.

11. See the following expression:

$$\frac{1}{4} \times c$$

Evaluate this expression if $c = \frac{2}{7}$.

12. Rashid is planning on spending $\frac{2}{3}$ as many hours watching television this week as he did last week. Is Rashid going to spend more hours or fewer hours watching television this week?

13. Ariel goes running for $\frac{5}{6}$ of an hour. The next day, she runs for $\frac{3}{4}$ as much time.

- a. Does she spend more or less time running the second day?
- b. By mistake, she runs $\frac{3}{2}$ as much time. Did she run more or less than what she meant to?

14. Annette has $4\frac{1}{2}$ liters of cranberry juice in a jug. She trips and spills $\frac{3}{4}$ of it.

- a. How much has spilled on the floor?
- b. How much left in the jug?

15. See the following expression:

$$2 \div x$$

Evaluate this expression if $x = \frac{5}{9}$.