

Multiplying and Dividing Fractions

When multiplying fractions, there are also a few simple steps to follow:

1. Simplify the fractions if they are not already in their lowest terms.
2. Multiply the numerators of the fractions to get the new numerator.
3. Multiply the denominators of the fractions to get the new denominator.
4. Simplify the resulting fraction if possible.

Example:

$$6/12 \times 2/5 = \underline{\hspace{2cm}}$$

In this example, you would begin by simplifying 6/12. 6 goes into 6 and six goes into 12. Therefore, 6/12 can be reduced to 1/2. Your problem would now read:

$$1/2 \times 2/5 = \underline{\hspace{2cm}}$$

Your next step would be to multiply the numerators of each fraction. $2 \times 1 = 2$. Your new numerator would be 2. You would then need to multiply the denominators in each fraction. $2 \times 5 = 10$. Your new denominator is 10. This would make your answer 2/10. Again, this fraction can be reduced because 2 is the greatest common factor of both 2 and 10. This means that your fraction can be reduced to 1/5.

When dividing fractions, you would need to follow these steps:

1. Turn the second fraction (the one you are dividing by) upside-down. Turning a fraction upside-down is called making a reciprocal of the original fraction.
2. Multiply the first fraction by the reciprocal of the second fraction.
3. Simplify the fraction if necessary.

Example:

$$\frac{2}{5} \div \frac{1}{10} = \underline{\hspace{2cm}}$$

Name _____

Date _____

Multiplying and Dividing Fractions (Cont'd)

To find your answer, you would need to turn the second fraction into a reciprocal and then multiply your numerators and denominators. You could re-write the question as:

$$\frac{2}{5} \times \frac{10}{1} = \underline{\quad}$$

You would then multiply your numerators: $2 \times 10 = 20$. Your new numerator would be 20. You would then multiply your denominators: $5 \times 1 = 5$. Your new denominator would be 5. This would make your answer $20/5$. You can reduce this fraction because 5 goes into both 20 and 5. This would make your answer $4/1$, which is the same as simply saying 4. Your answer would be 4.

Name _____

Date _____

Multiplying and Dividing Fractions Questions

Solve the following (Use the space below the question to work out your answer):

1. $\frac{2}{3} \times \frac{4}{9} = \underline{\hspace{2cm}}$

2. $\frac{5}{6} \div \frac{1}{3} = \underline{\hspace{2cm}}$

3. $\frac{3}{8} \times \frac{1}{7} = \underline{\hspace{2cm}}$

4. $\frac{2}{5} \times \frac{1}{15} = \underline{\hspace{2cm}}$

5. $\frac{11}{12} \div \frac{1}{4} = \underline{\hspace{2cm}}$

6. $\frac{3}{7} \times \frac{4}{9} = \underline{\hspace{2cm}}$

Name _____

Date _____

Multiplying and Dividing Fractions Answers

Solve the following (Use the space below the question to work out your answer):

1. $\frac{2}{3} \times \frac{4}{9} = 8/27$

2. $\frac{5}{6} \div \frac{1}{3} = 15/6 \text{ or } 2 \frac{1}{2}$

3. $\frac{3}{8} \times \frac{1}{7} = 3/56$

4. $\frac{2}{5} \times \frac{1}{15} = 2/75$

5. $\frac{11}{12} \div \frac{1}{4} = 44/12 \text{ or } 3 \frac{2}{3}$

6. $\frac{3}{7} \times \frac{4}{9} = 12/63$