

Multiplying and Dividing Fractions

Key Vocabulary

Numerator—The number above the line in a fraction

Denominator—The number below the line in a fraction

Unit fraction—A fraction with 1 as the numerator

Product—Multiply

Commutative—Can be done in any order e.g. 4×3 is equal to 3×4

Quotient—The answer when one number has been divided by another

Reciprocal—The number found by dividing 1 by the number e.g. The reciprocal of 3 is $\frac{1}{3}$

Simplify—Dividing the numerator and the denominator by the same number to give a whole number answer

Multiplying an fraction by an integer

$$4 \times \frac{1}{3} = \frac{4}{3} = 1 \frac{1}{3}$$

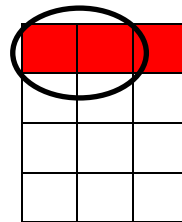


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Multiplying a fraction by a fraction

$$\frac{2}{3} \times \frac{1}{4} = \text{Or } \frac{2}{3} \text{ of } \frac{1}{4} =$$

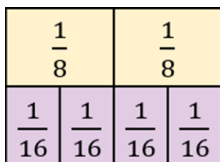


One quarter shaded.

Now find $\frac{2}{3}$ of it.

$$\frac{2}{12} = \frac{1}{6}$$

Dividing a fraction by a unit fraction



$$\frac{1}{8} \div \frac{1}{16} = 2$$

The answer is 2 as 2 $\frac{1}{16}$ fit into $\frac{1}{8}$

Dividing a fraction but a fraction

$$\frac{4}{5} \div \frac{2}{3} =$$

Find the reciprocal of the second fraction and change the sign to a X

$$\frac{4}{5} \times \frac{3}{2} =$$

Simplify a numerator and a denominator is possible. This might not always be the case.

$$\frac{2}{5} \times \frac{3}{1} =$$

Multiply the numerators and then the denominators $\frac{2}{5} \times \frac{3}{1} = \frac{6}{5} = 1 \frac{1}{5}$

Dividing an integer by a fraction

$$2 \div \frac{1}{3} =$$



The answer is 6, as 6 $\frac{1}{3}$ fit into 2 whole ones.