

Dividing Fractions by Whole Numbers

You can divide a fraction by a whole number by multiplying by its reciprocal instead. Let's try it! Solve $\frac{3}{4} \div 2$.

First, find the reciprocal of the whole number. Start by writing the whole number as a fraction by placing it over 1. Then switch the numerator and denominator to find the reciprocal.

$$2 = \frac{2}{1} \quad \frac{2}{1} \rightarrow \frac{1}{2}$$

Next, change the division problem into a multiplication problem. Multiply by the reciprocal that you found above. Make sure your answer is in simplest form.

$$\frac{3}{4} \div 2 = \frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$$



Try it yourself! Divide. Show your work and write your final answer in simplest form.

$\frac{1}{2} \div 3 =$	$\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$	$\frac{1}{3} \div 8 =$	$\frac{1}{3} \times \frac{1}{8} = \frac{1}{24}$
$\frac{2}{5} \div 7 =$	$\frac{2}{5} \times \frac{1}{7} = \frac{2}{35}$	$\frac{5}{6} \div 2 =$	$\frac{5}{6} \times \frac{1}{2} = \frac{5}{12}$
$\frac{5}{8} \div 5 =$	$\frac{5}{8} \times \frac{1}{5} = \frac{5}{40} = \frac{1}{8}$	$\frac{2}{7} \div 3 =$	$\frac{2}{7} \times \frac{1}{3} = \frac{2}{21}$
$\frac{3}{10} \div 6 =$	$\frac{3}{10} \times \frac{1}{6} = \frac{3}{60} = \frac{1}{20}$	$\frac{4}{5} \div 6 =$	$\frac{4}{5} \times \frac{1}{6} = \frac{4}{30} = \frac{2}{15}$
$\frac{4}{9} \div 2 =$	$\frac{4}{9} \times \frac{1}{2} = \frac{4}{18} = \frac{2}{9}$	$\frac{3}{12} \div 4 =$	$\frac{3}{12} \times \frac{1}{4} = \frac{3}{48} = \frac{1}{16}$