



HOW TO DIVIDE FRACTIONS BY WHOLE NUMBERS

Before you tackle this, you need to know about multiplying fractions.

Frazer says “To divide a fraction by an integer, or whole number, follow these 4 easy steps.”

Step 1

- Change the integer, or whole number, into a fraction by putting it over a denominator of 1.
- Convert any mixed fractions into *improper* fractions.

Step 2

- Swap the numerator and denominator the the dividend fraction (which was the whole number), and then change the operation to x instead of ÷.

Step 3

- Multiply the numerators of the fractions together, and the denominators of the fractions together. This will give you the answer.

Step 4 (Optional)

- You may want to convert the fraction into its simplest form and convert it back to a mixed fraction (if it is an improper fraction).

$$\text{Example 1} \quad \frac{3}{4} \div 6 = \frac{3}{4} \div \frac{6}{1} = \frac{3}{4} \times \frac{1}{6} = \frac{3}{24} = \frac{1}{8}$$

$$\text{Example 2} \quad 2 \frac{2}{3} \div 7 = \frac{8}{3} \div \frac{7}{1} = \frac{8}{3} \times \frac{1}{7} = \frac{8}{21}$$

“Once you have understood how to use this method, a short cut is to multiply the denominator of the fraction by the integer you are dividing to give you the answer.”

$$\text{Example 3} \quad \frac{2}{7} \div 4 = \frac{2}{7 \times 4} = \frac{2}{28} = \frac{1}{14}$$

