# Dividing Fractions

At first, dividing fractions may seem very difficult, but remembering just 2 steps is all it takes!

STEP 1: Turn the 2nd fraction upside-down

STEP 2: Change the '÷' to a 'x'

E.g. $\frac{1}{2} \div \frac{2}{3}$

Using our rules, this becomes $\frac{1}{2} \times \frac{3}{2}$ We can now solve: $\frac{1}{2} \times \frac{3}{2} = \frac{1 \times 3}{2 \times 2} = \frac{3}{4}$

Reminder: If you need a reminder of how to multiply fractions (. . . and how to cancel down to make it easier!), see the Multiplying Fractions Worksheet

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Now it's your turn:

Easy:

1) $\frac{1}{5} \div \frac{1}{2} = \frac{1}{5} \times \frac{2}{1} = \frac{1 \times 2}{5 \times 1} = \frac{2}{5}$

2) $\frac{1}{4} \div \frac{2}{5} = \frac{1}{4} \times \frac{5}{2} = \frac{1 \times 5}{4 \times 2} = \frac{5}{8}$

3) $\frac{2}{3} \div \frac{3}{4} = \frac{2}{3} \times \frac{4}{3} = \frac{2 \times 4}{3 \times 3} = \frac{8}{9}$

Handy Hint: Forgotten how to change between mixed fractions and top heavy fractions? See the Worksheet!

Tricky: (Don't forget to cancel down across the "diagonals"!)

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

2) $\frac{4}{5} \div \frac{2}{3} = \frac{4}{5} \times \frac{3}{2} = \frac{2}{5} \times \frac{3}{1} = \frac{2 \times 3}{5 \times 1} = \frac{6}{5} = 1\frac{1}{5}$

Super Difficult!: (Change to top heavy fractions first!)

1) $1\frac{1}{2} \div 1\frac{1}{4} = \frac{3}{2} \div \frac{5}{4} = \frac{3}{2} \times \frac{4}{5} = \frac{3}{1} \times \frac{2}{5} = \frac{3 \times 2}{1 \times 5} = \frac{6}{5} = 1\frac{1}{5}$

2) $1\frac{5}{7} \div \frac{3}{14} = \frac{12}{7} \div \frac{3}{14} = \frac{12}{7} \times \frac{14}{3} = \frac{12}{1} \times \frac{2}{3} = \frac{4}{1} \times \frac{2}{1} = \frac{8}{1} = 8$