

# Multiplying fractions

Multiply simple pairs of proper fractions, writing the answer in its simplest form



## Challenge

1 Work out the following multiplication calculations.

a  $\frac{1}{2} \times \frac{1}{3} = \frac{1 \times 1}{2 \times 3} = \frac{\square}{\square}$

b  $\frac{1}{5} \times \frac{1}{2} = \frac{1 \times 1}{5 \times 2} = \frac{\square}{\square}$

c  $\frac{1}{3} \times \frac{1}{2} = \frac{1 \times 1}{\square \times \square} = \frac{\square}{\square}$

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

e  $\frac{1}{6} \times \frac{1}{2} = \frac{1 \times 1}{\square \times \square} = \frac{\square}{\square}$

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

g  $\frac{1}{5} \times \frac{1}{3} = \frac{1 \times 1}{\square \times \square} = \frac{\square}{\square}$

h  $\frac{1}{4} \times \frac{1}{2} = \frac{1 \times 1}{\square \times \square} = \frac{\square}{\square}$

2 Work out the following multiplication calculations and give each answer in its simplest form.

a  $\frac{2}{3} \times \frac{1}{4} = \frac{2 \times 1}{\square \times \square} = \frac{\square}{\square}$

b  $\frac{2}{5} \times \frac{1}{2} = \frac{2 \times 1}{\square \times \square} = \frac{\square}{\square}$

c  $\frac{1}{3} \times \frac{2}{6} = \frac{1 \times 2}{\square \times \square} = \frac{\square}{\square}$

d  $\frac{2}{4} \times \frac{2}{5} = \frac{2 \times 2}{\square \times \square} = \frac{\square}{\square}$

e  $\frac{3}{4} \times \frac{2}{3} = \frac{3 \times 2}{\square \times \square} = \frac{\square}{\square}$

f  $\frac{4}{5} \times \frac{3}{4} = \frac{4 \times 3}{\square \times \square} = \frac{\square}{\square}$



1 Choose 10 different pairs of fractions from below to multiply together. Work out the answer to each fraction multiplication calculation, writing your answer in its simplest form.

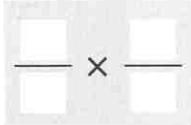
**Example**

$$\frac{2}{3} \times \frac{1}{6} = \frac{2 \times 1}{3 \times 6} = \frac{2}{18} = \frac{1}{9}$$


2 Choose one of the fraction multiplication calculations that you wrote in Question 1 and use it to write an explanation as to how to multiply pairs of fractions. Show your explanation to a partner and ask them to suggest how you might improve it.

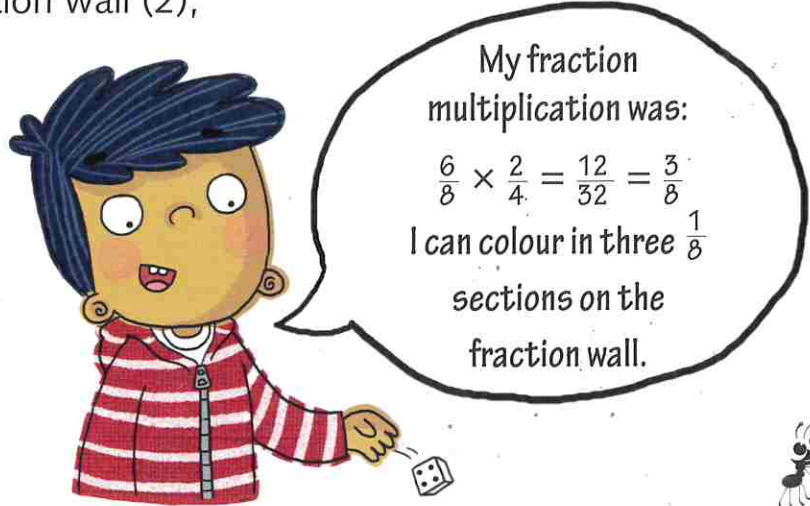
Play this game with a partner.

- Both players roll the dice four times and record the digits. 0 counts as 10.
- Use your four digits to make a fraction multiplication, like this:
- If the denominator of your answer is on the fraction wall on Resource 77: Fraction wall (2), you can colour in the appropriate number of sections on your sheet.
- Have 10 turns each.
- Work out the total fraction of the fraction wall you have coloured in.
- The winner is the player who has coloured in the most.



**You will need:**

- copies of Resource 77: Fraction wall (2)
- 0–9 dice
- coloured pencil



My fraction multiplication was:

$$\frac{6}{8} \times \frac{2}{4} = \frac{12}{32} = \frac{3}{8}$$

I can colour in three  $\frac{1}{8}$  sections on the fraction wall.

