

Mathematics

Multiply a fraction by a whole number

Mr Kelsall



New learning: multiplying fractions

Ciaran spends a quarter of an hour running.
He runs three times per week.
How long does he spend running?

Draw

Model

Repeated addition

Multiplication

Fraction

Number line



New learning: multiplying fractions

One blink of an eye takes $\frac{3}{10}$ of a second.
How long will three blinks take?

Draw

Model

Repeated addition

Multiplication

Fraction

Number line



New learning: multiplying fractions

How would you solve these calculations?
Can you draw them?

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

$$\frac{2}{9} \times 4$$

$$3 \times \frac{2}{7}$$



Develop learning: multiplying fractions

What do you notice about these calculations?

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

$$\frac{3}{10} \times 3 = \frac{9}{10}$$

$$\frac{1}{7} \times 5 = \frac{5}{7}$$

$$\frac{1}{12} \times 8 = \frac{8}{12} = \frac{2}{3}$$

$$\frac{3}{15} \times 2 = \frac{6}{15}$$

$$\frac{2}{9} \times 4 = \frac{8}{9}$$



Develop learning: multiplying fractions

One cup holds a quarter of a litre of liquid, how much liquid will five cups hold?

How is this questions different to previous ones?



Develop learning: multiplying fractions

A ribbon is $\frac{2}{3}$ of a metre long. Another ribbon is five times the length, how long is it?



Independent task: multiplying fractions

A small bottle hold one fifth of a litre of liquid. How much will seven bottles hold?



The length of a rectangle is 12 cm and the width is $\frac{1}{10}$ cm. What is the area of this

$$\frac{2}{7} \times 5$$



Independent task: multiplying fractions

A hurdle is three quarters of a metre tall.
A pole vaulter vaults five times this
height. What height is this?



$$\frac{5}{8} \times 4$$

$$\frac{3}{10} \times 7$$

