

Divide an integer by a fraction

1 Complete the sentences.

a) $\frac{1}{5}$ $\frac{1}{5}$ $\frac{1}{5}$ $\frac{1}{5}$ $\frac{1}{5}$

There are fifths in one whole. So $1 \div \frac{1}{5} =$

b) $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$

There are thirds in one whole. So $1 \div \frac{1}{3} =$ and $2 \div \frac{1}{3} =$

c) Complete the calculations. Use your answers to part a) and b) to help you.

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

$3 \div \frac{1}{5} =$

$4 \div \frac{1}{5} =$

2 Match the equivalent calculations.

$3 \div \frac{1}{2}$

4×2

$4 \div \frac{1}{3}$

4×3

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

3×2

$4 \div \frac{1}{2}$

3×5

3 Complete the calculations.

a) $3 \div \frac{1}{2} =$

f) $6 \div \frac{1}{4} =$

b) $3 \div \frac{1}{3} =$

g) $30 \div \frac{1}{2} =$

c) $3 \div \frac{1}{4} =$

h) $30 \div \frac{1}{3} =$

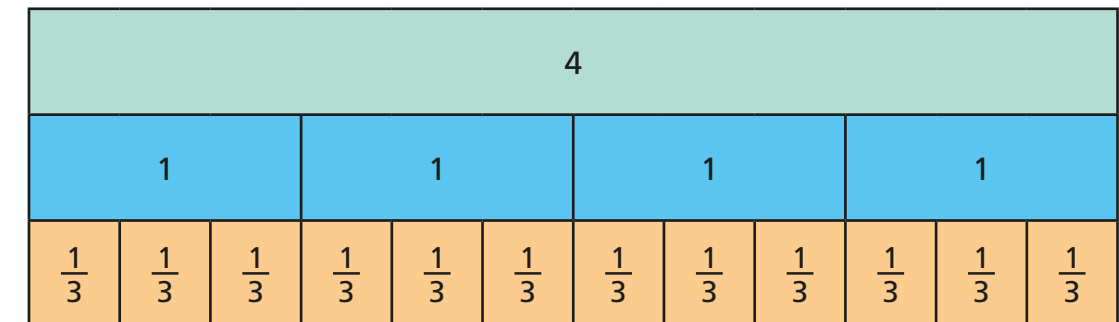
d) $6 \div \frac{1}{2} =$

i) $30 \div \frac{1}{4} =$

e) $6 \div \frac{1}{3} =$

j) $x \div \frac{1}{4} =$

4



Explain how the diagram represents the calculations.

a) $4 \div \frac{1}{3} = 12$

b) $4 \div \frac{2}{3} = 6$

Compare answers with a partner.

5

$$4 \div \frac{1}{5} = 4 \times 5 = 20, \text{ so}$$

$$4 \div \frac{2}{5} = 4 \times 5 \div 2 = 20 \div 2 = 10$$



Use Mo's method to complete the calculations.

a) $6 \div \frac{3}{4} = 6 \times 4 \div 3 = 24 \div 3 = \square$

b) $10 \div \frac{2}{3} = 10 \times 3 \div 2 = \square \div \square = \square$

c) $10 \div \frac{5}{8} = 10 \times \square \div \square = \square$

d) $9 \div \frac{3}{5} = 9 \times \square \div \square = \square$

6

Sort the calculations into two groups that have the same answers.

$8 \div \frac{1}{4}$	$8 \times \frac{1}{4}$	$16 \times \frac{1}{8}$	$8 \div 4$	8×4
16×2	$16 \div 8$	$16 \div \frac{1}{2}$	$4 \div \frac{1}{8}$	

Group 1: The answer is _____

Group 2: The answer is _____

7

a) Work out these values if $x = \frac{1}{2}$

$$4x = \square \quad \frac{4}{x} = \square$$

b) Work out these values if $x = \frac{1}{4}$

$$4x = \square \quad \frac{4}{x} = \square$$

c) Work out these values $x = \frac{1}{6}$

$$4x = \square \quad \frac{4}{x} = \square$$

8

A large coil of wire is 12 m long.

a) How many pieces of wire $\frac{1}{2}$ m long can be cut from the coil?

b) How many pieces of wire $\frac{1}{4}$ m long can be cut from the coil?

c) How many pieces of wire $\frac{3}{4}$ m long can be cut from the coil?

d) How many pieces of wire $\frac{3}{5}$ m long can be cut from the coil?

