

# Divide fractions by integers (2)

1

$$\frac{4}{5} \div 2 \quad \frac{4}{5} \div 3$$

a) Write two things that are the same about the calculations.

e.g. They are both divisions.  
They both contain  $\frac{4}{5}$

b) Write one thing that is different about the calculations.

What the fraction is being divided by.

c) Draw a diagram to help you work out the answer to  $\frac{4}{5} \div 2$

$$\frac{4}{5} \div 2 = \frac{2}{5}$$



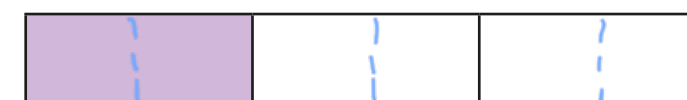
d) Draw a diagram to help you work out the answer to  $\frac{4}{5} \div 3$

$$\frac{4}{5} \div 3 = \frac{4}{15}$$

2

Complete the divisions using the diagrams to help you.

a)  $\frac{1}{3} \div 2 = \frac{1}{6}$



b)  $\frac{1}{3} \div 3 = \frac{1}{9}$



c)  $\frac{2}{3} \div 3 = \frac{2}{9}$



3

$\frac{3}{4}$  of a kilogram of rice is divided equally between two bowls.



How much rice is in each bowl?

$$\frac{3}{8} \text{ kg}$$



4 Work out the divisions.

a)  $\frac{1}{5} \div 7 = \frac{1}{35}$

f)  $\frac{5}{72} = \frac{5}{6} \div 12$

b)  $\frac{1}{18} = \frac{1}{6} \div 3$

g)  $\frac{8}{3} \div 7 = \frac{8}{21}$

c)  $\frac{1}{4} \div 9 = \frac{1}{36}$

h)  $\frac{19}{100} = \frac{19}{20} \div 5$

d)  $\frac{1}{42} = \frac{1}{7} \div 6$

i)  $\frac{1}{100} \div 25 = \frac{1}{2,500}$

e)  $\frac{4}{9} \div 7 = \frac{4}{63}$

j)  $\frac{9}{200} = \frac{45}{50} \div 20$

5 Write <, > or = to complete each statement.

a)  $\frac{1}{3} \div 5$   $\left( = \right)$   $\frac{1}{5} \div 3$

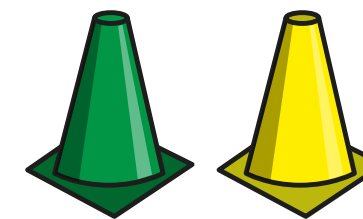
b)  $\frac{1}{3} \div 3$   $\left( > \right)$   $\frac{1}{5} \div 5$

c)  $\frac{3}{5} \div 5$   $\left( < \right)$   $\frac{3}{5} \div 3$

6 There are some cones in the PE shed.

Classes 1, 2 and 3 share them equally.

- Class 1 put theirs into 4 equal piles.
- Class 2 put theirs into 5 equal piles.
- Class 3 put theirs into 11 equal piles.



What fraction of the whole number of cones is in each pile?

|         | Fraction in each pile |
|---------|-----------------------|
| Class 1 | $\frac{1}{12}$        |
| Class 2 | $\frac{1}{15}$        |
| Class 3 | $\frac{1}{33}$        |

7 a) Which of these statements are true? Tick your answers.

$\frac{1}{2} \div 2$  is equal to  $\frac{1}{2} \times \frac{1}{2}$   
☒

$\frac{1}{2} \div 4 = \frac{1}{2} \times \frac{1}{4}$   
☒

$\frac{1}{2} \div 3 = \frac{1}{2} \times \frac{1}{3}$   
☒

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

b) What do you notice?

Is it only true for halves?

Does it work for non-unit fractions?

Talk to a partner.

