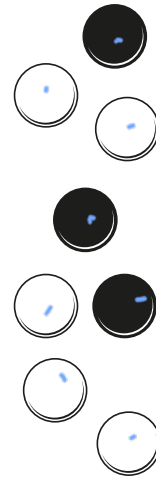


Ratio and fractions

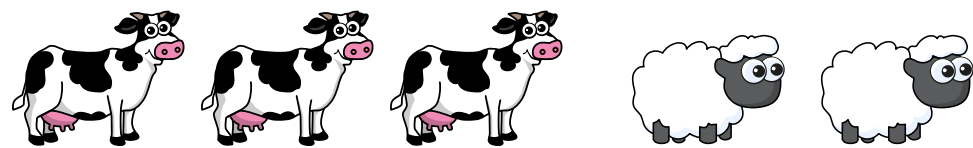
1 Here are some counters.

Complete the sentences to describe the counters.

- a) There are $\boxed{8}$ counters altogether.
- b) There are $\boxed{5}$ white counters.
- c) There are $\boxed{3}$ black counters.
- d) 3 out of the 8 counters are black
- e) $\boxed{5}$ out of the 8 counters are white.



2 Here are some animals.



Complete the sentences.

For every $\boxed{3}$ cows there are $\boxed{2}$ sheep.

The ratio of cows to sheep is $\boxed{3}$ to $\boxed{2}$

$\boxed{\frac{3}{5}}$ of the animals are cows.

$\boxed{\frac{2}{5}}$ of the animals are sheep.

3 Part of the bar has been shaded.



a) What fraction of the bar is shaded?

$\boxed{\frac{5}{6}}$

b) What fraction of the bar is not shaded?

$\boxed{\frac{1}{6}}$

c) Write the ratio of shaded to non-shaded parts.

$\boxed{5}$ to $\boxed{1}$

d) Write the ratio of non-shaded to shaded parts.

$\boxed{1}$ to $\boxed{5}$

4 Here are some shapes.



a) What fraction of the shapes are circles?

$\boxed{\frac{4}{10}}$

b) What fraction of the shapes are stars?

$\boxed{\frac{6}{10}}$

c) What is the ratio of stars to circles?

$\boxed{6}$ to $\boxed{4}$

d) What is the ratio of circles to stars?

$\boxed{4}$ to $\boxed{6}$

Can you find a different answer to each of these questions?

Compare with a partner.

- 5 The bar model shows the ratio 1 to 3 to 4



Talk to a partner about how it shows this.

- a) What fraction of the bar is striped?
- b) What fraction of the bar is fully shaded?
- c) What fraction of the bar is blank?

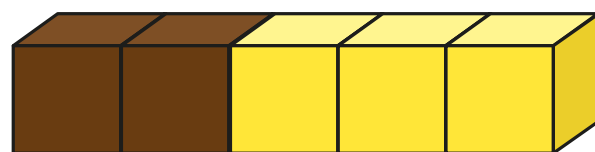
$$\frac{1}{8}$$

$$\frac{3}{8}$$

$$\frac{4}{8}$$



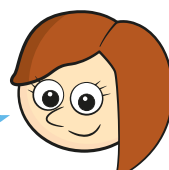
6



Jack

The fraction of brown cubes is $\frac{2}{3}$ because the ratio of brown to yellow is 2 to 3

Rosie



The fraction of brown cubes is $\frac{2}{5}$

Who is correct? Rosie

Explain your answer.

2 out of 5 cubes are brown.

- 7 Scott draws a bar and divides it into 8 equal parts.



He shades 25% of the bar.

What is the ratio of shaded to non-shaded parts?

2 to 6

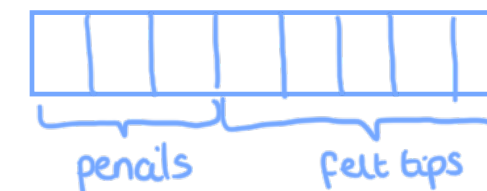
(or 1 to 3)

- 8 A pencil case contains felt tips and pencils.

$\frac{3}{8}$ of the contents are pencils.

What is the ratio of felt tips to pencils?

5 to 3



- 9 Ron has some limes and strawberries.

The ratio of strawberries to limes is 5 to 1

- a) How do you know he has more strawberries than limes?

For every 1 lime there are 5 strawberries.

- b) What fraction of the fruits are strawberries?

$$\frac{5}{6}$$

- c) What fraction of the fruits are limes?

$$\frac{1}{6}$$

