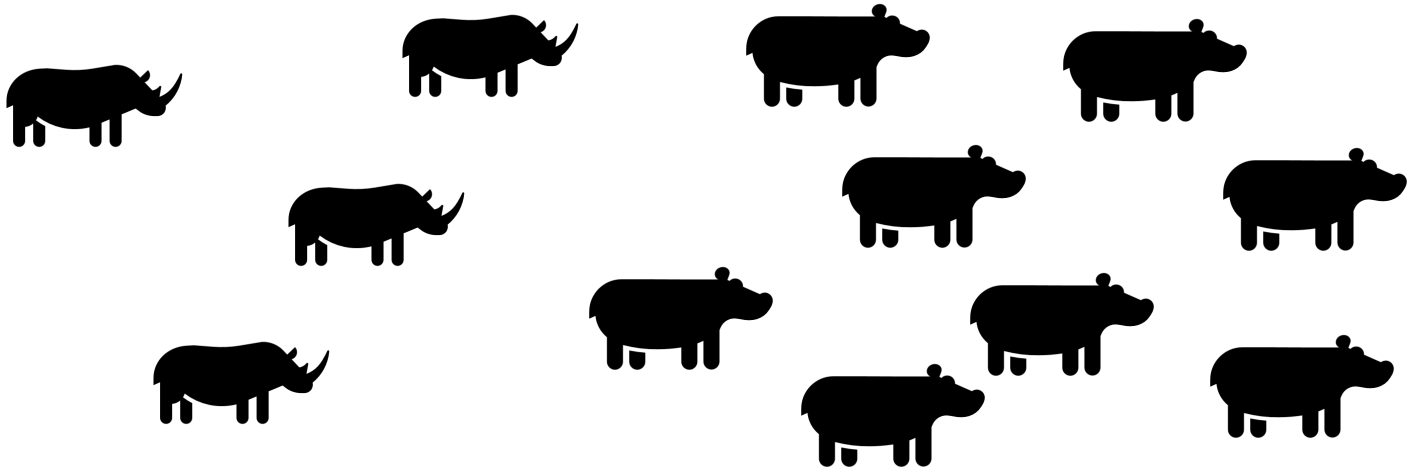
# RECALL

Write three different sentences about the ratio of the following things:



Rhinos

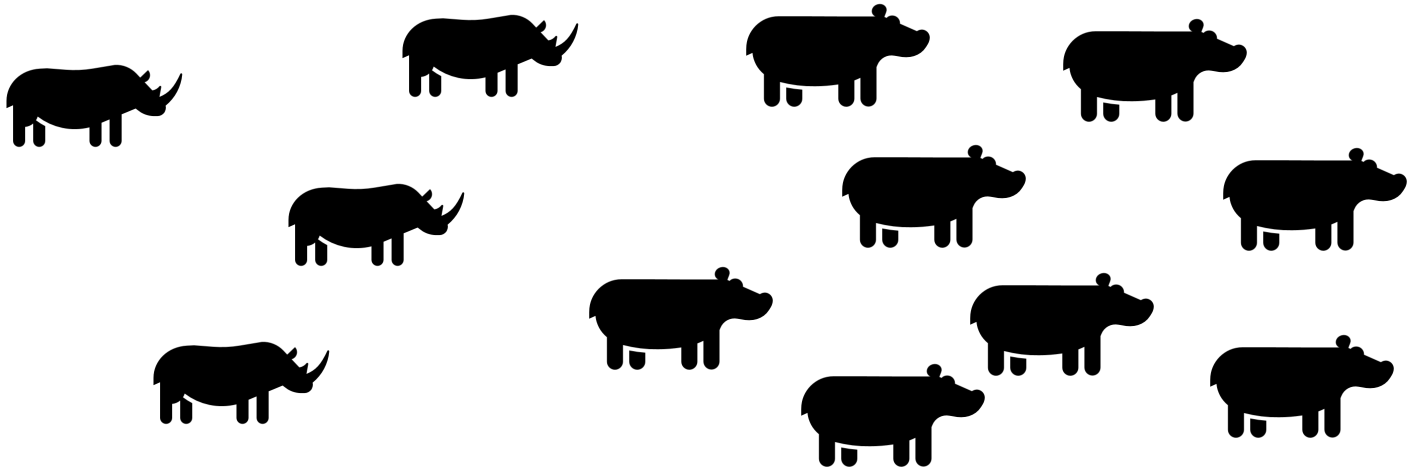
Hippos

3B4 Me
There are … rhinos for every … hippos.

What percentage of the animals are rhinos?
How did you work this out?

# RECALL

Write three different sentences about the ratio of the following things:



Rhinos

Hippos

3B4 Me

There are 4 rhinos for every 8 hippos.

There are 2 rhinos for every 4 hippos.

There is 1 rhino for every 2 hippos.

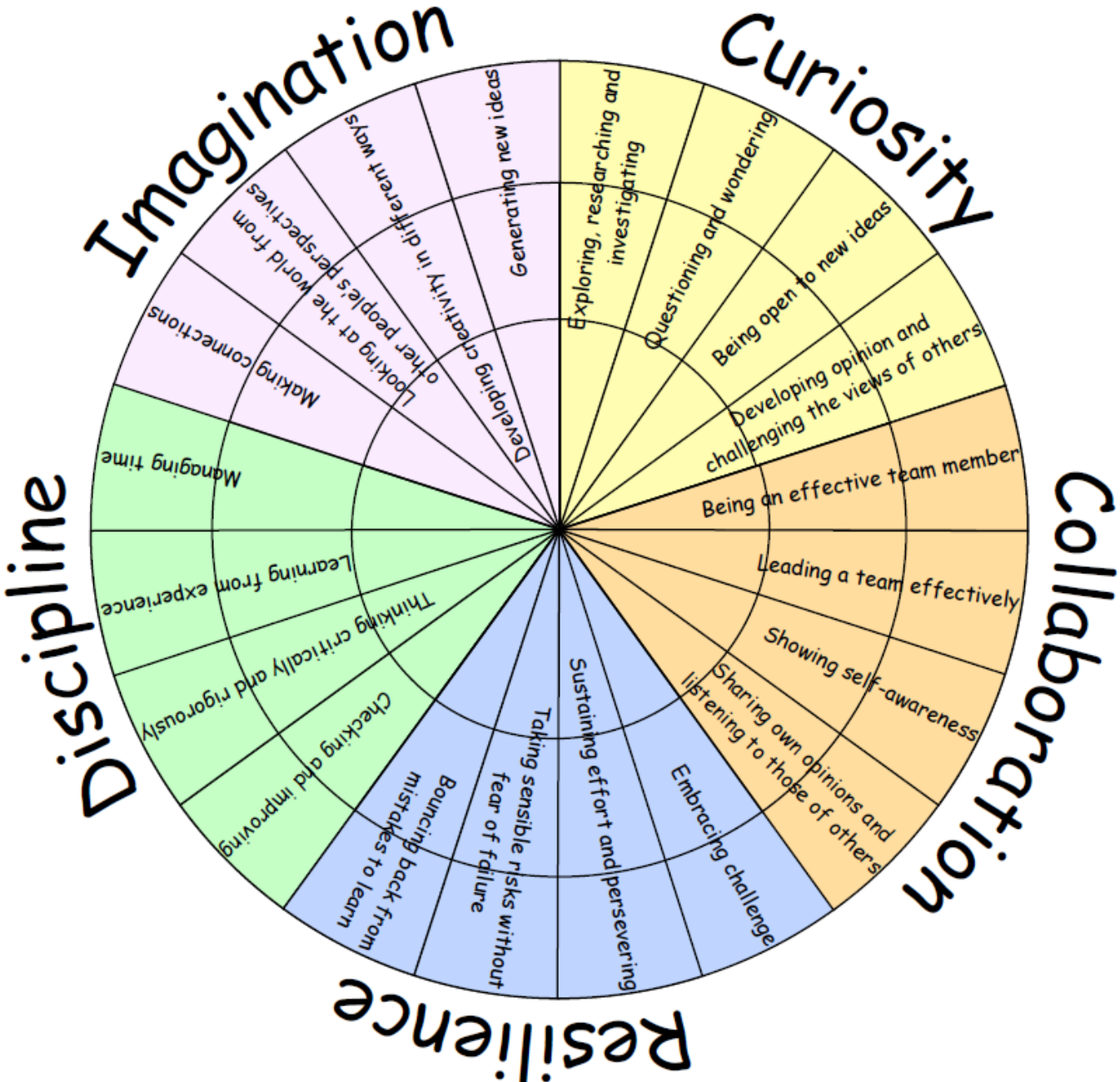
Rhinos = 4 out of 12 = $1/3$ = 33.3%

Hippos = 8 out of 12 = $2/3$ = 66.6%

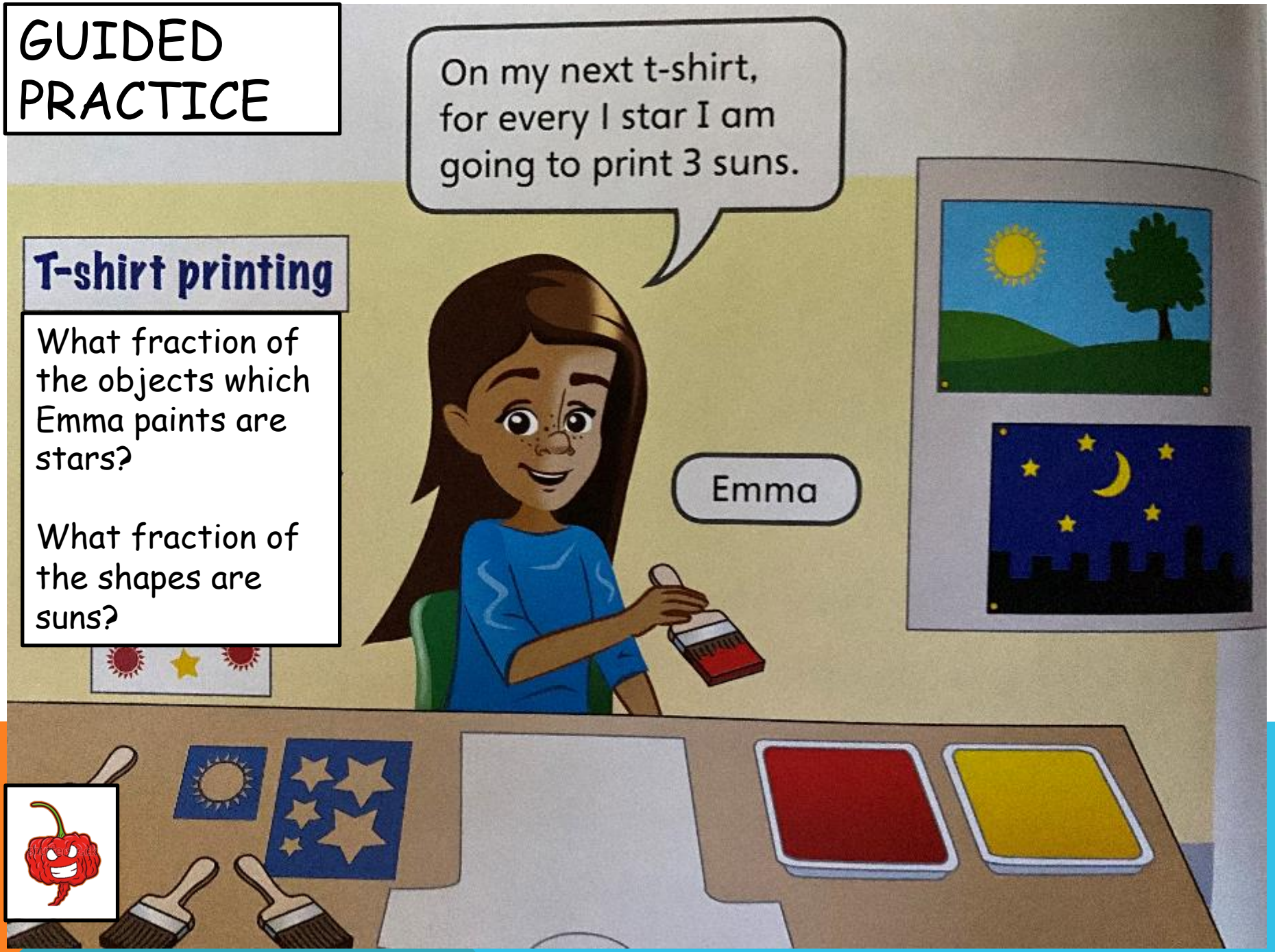
# I CAN IDENTIFY THAT A PROBLEM CAN BE WRITTEN AS A RATIO

Percentages and Ratio (15v)

# LEARNING HABITS?



# GUIDED PRACTICE




What fraction of the objects which Emma paints are stars?

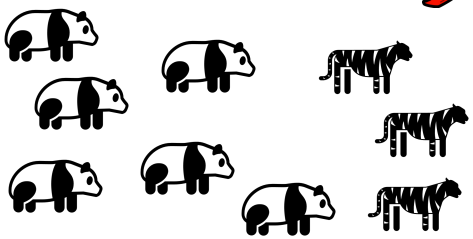
What fraction of the shapes are suns?

IP

Here are some animals.

How many animals are there?
How many rabbits are there?
How many snakes are there?
What fraction of the animals are rabbits?
What fraction are snakes?

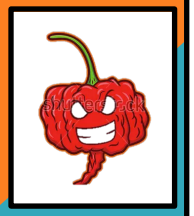
Here are some more animals.



How many animals are there?
How many pandas are there?
How many tigers are there?
What fraction of the animals are pandas?
What fraction are tigers?
Can you simplify these?

Here are even more animals.

How many animals are there?
How many sharks are there?
How many sealions are there?
What fraction of the animals are sharks?
What fraction are sealions?
Can you simplify these?
Can you write it as a ratio sentence?



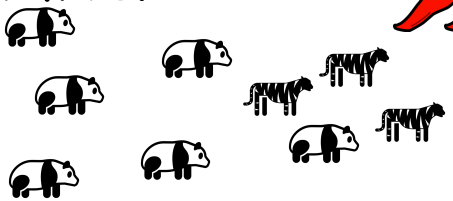
Can you write ratios for all of the chilli questions?
What do is the connection between the ratios and the fractions?

IP

Here are some animals.

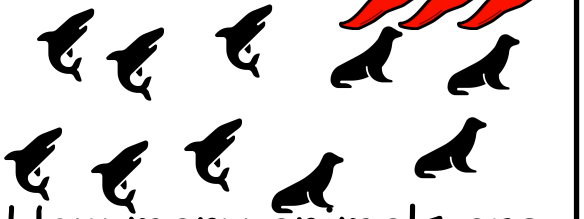
How many animals are there? 5
How many rabbits are there? 4
How many snakes are there? 1
What fraction of the animals are rabbits? 4/5
What fraction are snakes? 1/5

Here are some more animals.



How many animals are there? 9
How many pandas are there? 6
How many tigers are there? 3
What fraction of the animals are pandas? 6/9
What fraction are tigers? 3/9
Can you simplify these?
Pandas = 2/3 Tigers = 1/3

Here are even more animals.

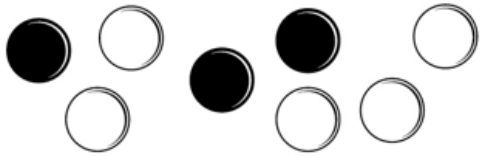


How many animals are there? 10
How many sharks are there? 6
How many sealions are there? 4
What fraction of the animals are sharks? 6/10
What fraction are sealions? 4/10
Can you simplify these? Sharks = 3/5
Sealions = 2/5
There are 3 sharks for every 2 sealions.

The numerator reflects the number from the ratio. The denominator is the total of both ratios.

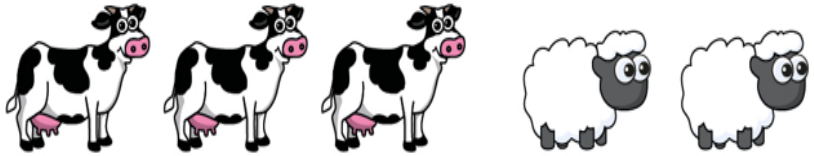
# DIVE DEEPER 1

1) Here are some counters:



a) There are … counters altogether.
b) There are … white counters.
c) There are … black counters.
d) 3 out of 8 counters are …….
e) … out of 8 counters are white.

2) Here are some animals:



a) For every … cows, there are …sheep.

b) The ratio of cows to sheep is … to ….

c) ?/? of the animals are cows.

d) ?/? of the animals are sheep.

3) Here is a bar (watch out Daniyaal!):

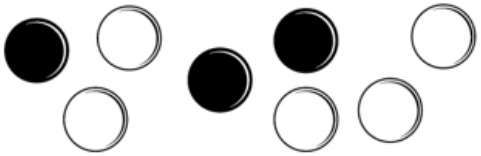
a) What fraction of the bar is shaded?
b) What fraction is **not** shaded?
c) Write the ratio of shaded to not-shaded parts: … to …

4) Here are some shapes:

a) What fraction of the shapes are circles?
b) What fraction of the shapes are stars?
c) What is the ratio of circles to stars?

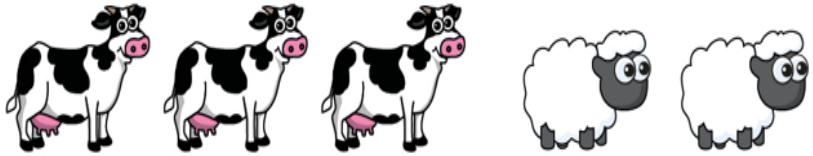
# DIVE DEEPER 1 - ANSWERS

1) Here are some counters:



a) There are 8 counters altogether.
b) There are 5 white counters.
c) There are 3 black counters.
d) 3 out of 8 counters are black.
e) 5 out of 8 counters are white.

2) Here are some animals:



a) For every 3 cows, there are 2 sheep.

b) The ratio of cows to sheep is 3 to 2.

c) 3/5 of the animals are cows.

d) 2/5 of the animals are sheep.

3) Here is a bar (watch out Daniyaal!):

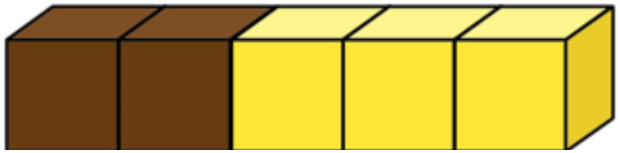
a) What fraction of the bar is shaded? 5/6
b) What fraction is **not** shaded? 1/6
c) Write the ratio of shaded to not-shaded parts: 5 to 1

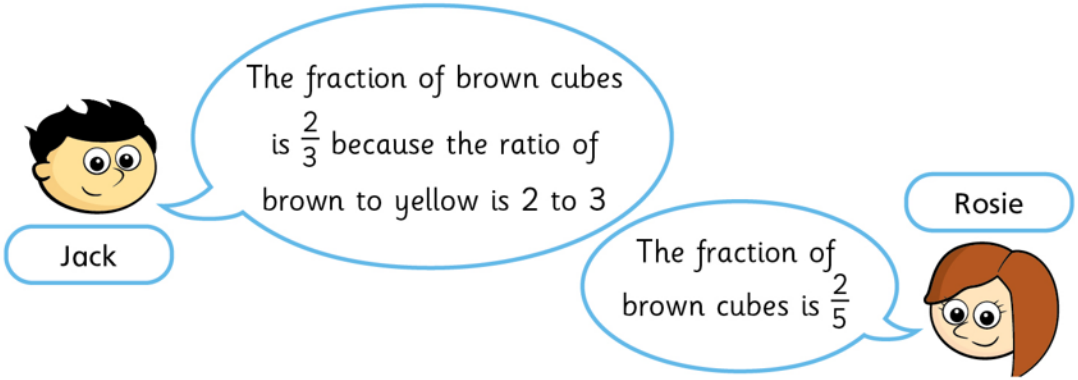
4) Here are some shapes:

a) What fraction of the shapes are circles? 4/10
b) What fraction of the shapes are stars? 6/10
c) What is the ratio of circles to stars? 4 to 6

# DIVE DEEPER 2

5) Here are some cubes:






Who is correct?
Explain your answer.

6) The bar model shows the ratio of 1 to 3 to 4.

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?
d) How did the ratio reflect these answers?

7) Mr Hall draws a bar.
He divides it into 8 equal pieces.
He shades 25% of it red.

a) Draw the bar.
b) What is the ratio of shaded to non-shaded?

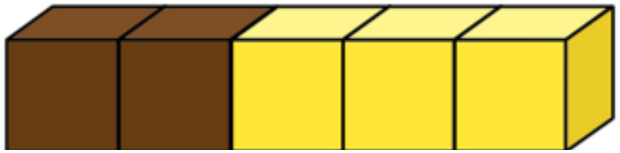
8) A pencil case contains felt-tip pens and pencils.

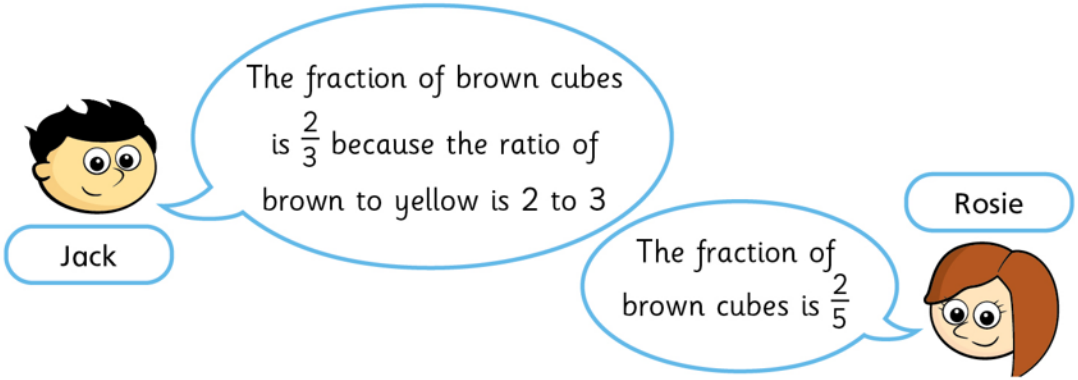
3/8 of the contents are pencils.
What is the ratio of felt-tip pens to pencils?

9) Ron has some strawberries and limes.
The ratio of strawberries to limes is 5 to 1.
How do you know he has more strawberries than limes?

# DIVE DEEPER 2 - ANSWERS

5) Here are some cubes:






Who is correct? Rosie

There are 5 cubes in total ➔ that is the denominator!

6) The bar model shows the ratio of 1 to 3 to 4.

a) What fraction of the bar is striped? 1/8

b) What fraction of the bar is fully shaded? 3/8

c) What fraction of the bar is blank? 4/8 = 1/2

d) The numerator is the ratio number. The total is the denominator.

7) Mr Hall draws a bar.
He divides it into 8 equal pieces.
He shades 25% of it red.

Ratio of shaded to non-shaded is 2 to 6.

8) A pencil case contains felt-tip pens and pencils.

3/8 of the contents are pencils.

Ratio of felt-tips to pencils is 3 to 5.

9) Ron has some strawberries and limes.
The ratio of strawberries to limes is 5 to 1.

For every 1 lime he has 5 strawberries ➔ five times as many strawberries!

# SELF-ASSESSMENT

- Some will even clearly explain the link between fractions and ratios.
- Some will begin to write ratios just from fractions.
- Most will be able to write ratios from diagrams and fractions.
- All will write ratios from diagrams.