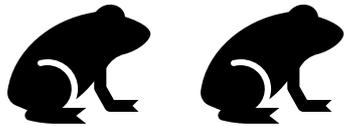


RECALL

Look at the animals below:



PART 1

What fraction of the animals are frogs?

What fraction of the animals are mice?

Can you simplify the fractions from your first two answers?

PART 2

What is the ratio of frogs to mice?

How is this related to the fractions you found in the first part?

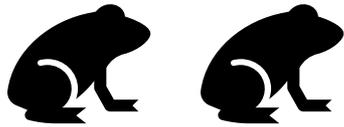


If I had 60 animals in the same ratio as above, how many frogs would I have?

How many mice would I have?

RECALL ANSWERS

Look at the animals below:



PART 1

What fraction of the animals are frogs? $\frac{2}{6}$

What fraction of the animals are mice? $\frac{4}{6}$

Can you simplify the fractions from your first two answers? $\frac{1}{3}$ and $\frac{2}{3}$

PART 2

What is the ratio of frogs to mice? $2 : 4$ or $1 : 2$

How is this related to the fractions you found in the first part?

The first number in the ratio is the numerator and the two numbers in the ratio added together is the denominator of the fraction.



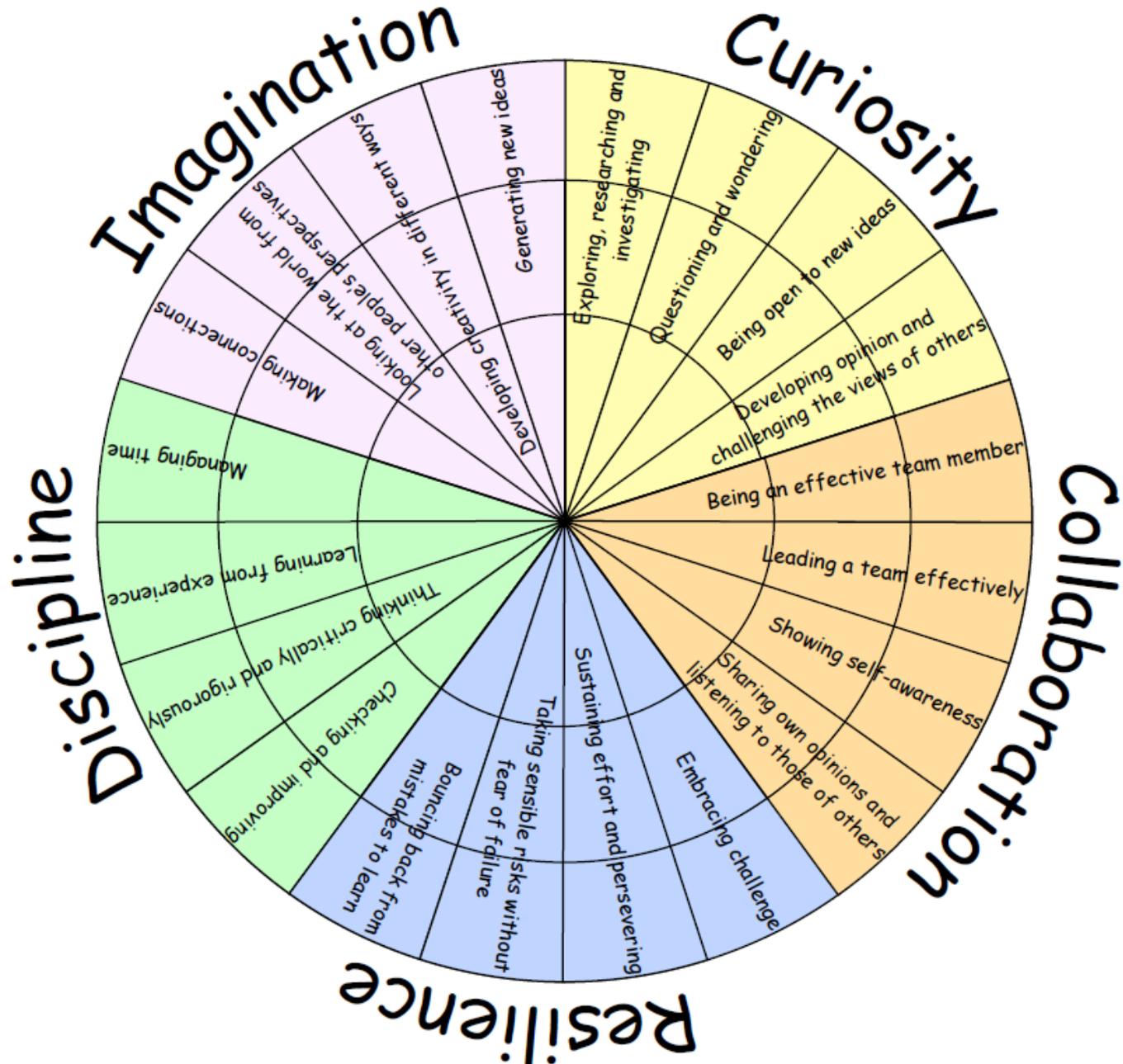
If I had 60 animals in the same ratio as above, how many frogs would I have? You would have $20 : 40$ (20 frogs).

How many mice would I have? 40 mice.

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

Percentages and Ratio (15v)

LEARNING HABITS?



An illustration of a soccer field. In the background, a coach and several children are playing soccer. A speech bubble above the coach says "Mr Lopez". In the foreground, the coach is talking to a group of six children. A speech bubble below them contains a math problem. A small red chili pepper icon is in the bottom left corner.

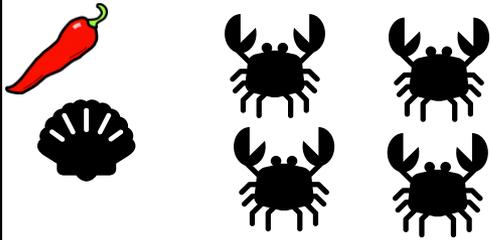
Mr Lopez

GUIDED PRACTICE

At football training today, for every 3 girls there are 2 boys.



INTELLIGENT PRACTICE



There is ... shell.

There are ... crabs.

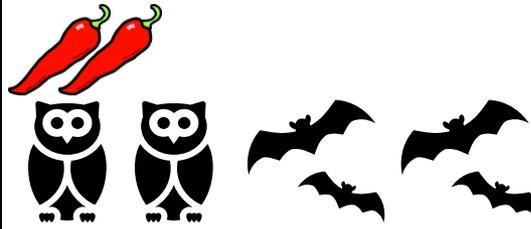
For every ... shell,
there are ... crabs.

Shells : Crabs

:

6 : 9

Draw a diagram
to show this in its
simplest form.



There are ... owls.

There are ... bats.

For every ... owls, there
are ... bats.

Can you simplify your
answer? Why?

Owls

Bats

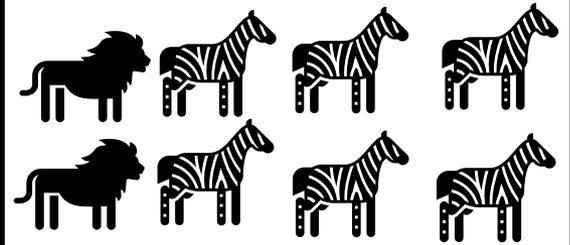


Owls : Bats

:

Or

:



For every ... lions, there
are ... zebras.



Can you simplify your
answer? Why?

Lions

Zebras



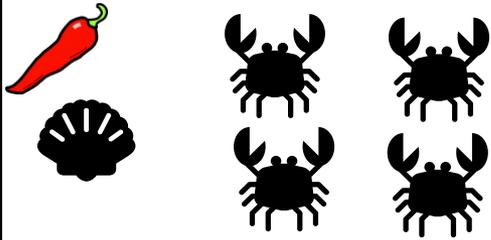
Lions : Zebras

:

Or

:

IP - ANSWERS



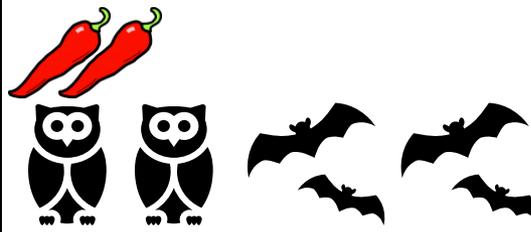
There is 1 shell.

There are 4 crabs.

For every 1 shell,
there are 4 crabs.

Shells : Crabs

1 : 4

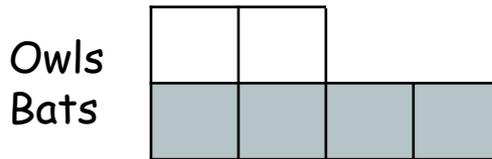


There are 2 owls.

There are 4 bats.

For every 2 owls, there
are 4 bats.

Can you simplify your
answer? Why?

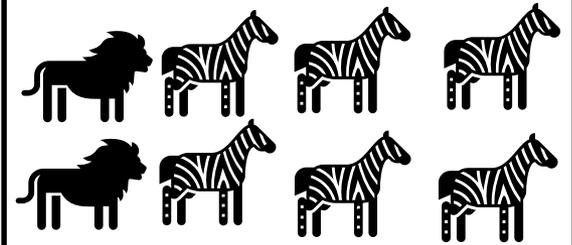


Owls : Bats

2 : 4

Or

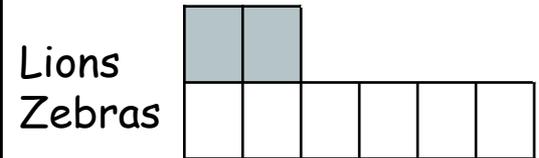
1 : 2



For every 2 lions, there
are 6 zebras.



Can you simplify your
answer? Why?



Lions : Zebras

2 : 6

Or

1 : 3

6 : 9

Draw a diagram
to show this in its
simplest form.



DIVE DEEPER 1

1) Match the ratios to the statements:

2:3 five to two

5:2 three to two

2:5 two to three

3:2 two to five

3) Who is correct?



The ratio of purple to yellow is 5:4

Mo



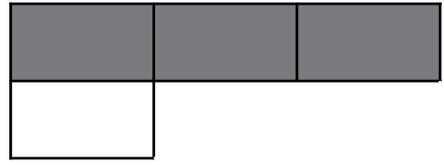
It is 4:5

Alex

2) Below is a bar diagram to show a ratio. Here are two examples:

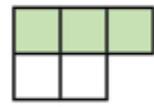
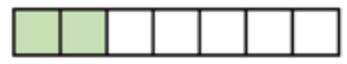


1:3 one to three



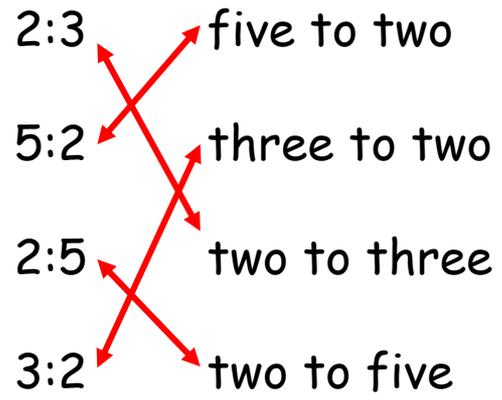
3:1 three to one

Copy the bar, then write a ratio and a statement for each:



DIVE DEEPER 1 - ANSWERS

1) Match the ratios to the statements:



3) Who is correct?



The ratio of purple to yellow is 5:4

Mo



It is 4:5

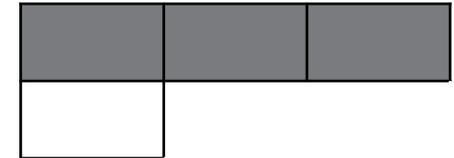
Alex

Mo is correct because he states the purple number first in the ratio. Alex doesn't tell us which number represents which colour.

2) Below is a bar diagram to show a ratio. Here are two examples:

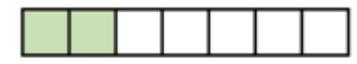


1:3 one to three



3:1 three to one

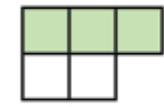
Copy the bar, then write a ratio and a statement for each:



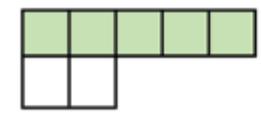
2:5 two to five



2:3 two to three



3:2 three to two



5:2 five to two

DIVE DEEPER 2

4) Dani has some counters, cubes and marbles.

Complete the sentences:

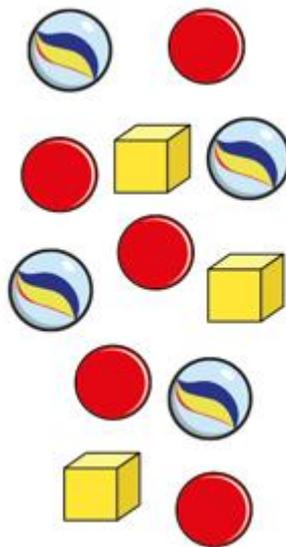
The ratio of counters to marbles is $? : ?$

The ratio of marbles to cubes is $? : ?$

The ratio of cubes to counters is $? : ?$

The ratio of counters to cubes is $? : ?$

The ratio of counters to cubes to marbles is $? : ? : ?$



5) Brett has drawn some triangles and squares.

The ratio of triangles to squares is 1:3.

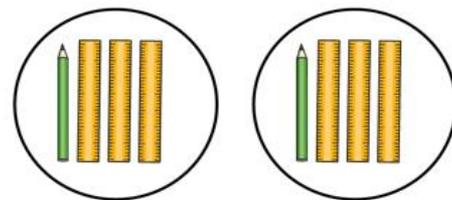
a) Are there more triangles or more squares?

b) Brett has drawn eight shapes.

What has Brett drawn?

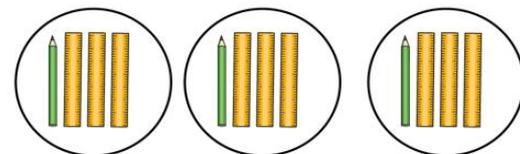
c) Brett draws another picture. He draws more than 10 shapes?

6a) Here are some rulers and pencils:



What is the ratio of pencils to rulers?

6b) Here are some more rulers and pencils:



Ron thinks that the ratio of pencils to rulers is the same.

Dora thinks that Ron is wrong because there are more pencils than rulers.

Who is correct?

DIVE DEEPER 2 - ANSWERS

4) Dani has some counters, cubes and marbles.

Complete the sentences:

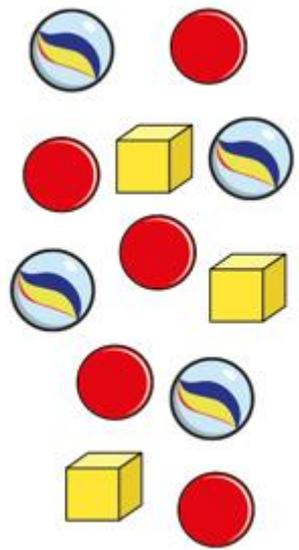
The ratio of counters to marbles is **5:4**

The ratio of marbles to cubes is **4:3**

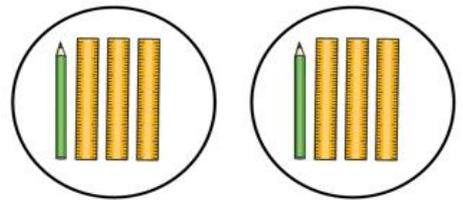
The ratio of cubes to counters is **3:5**

The ratio of counters to cubes is **5:3**

The ratio of counters to cubes to marbles is **5:3:4**

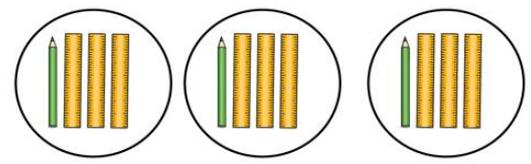


6a) Here are some rulers and pencils:



What is the ratio of pencils to rulers? **1:3**

6b) Here are some more rulers and pencils:



Ron thinks that the ratio of pencils to rulers is the same.

Dora thinks that Ron is wrong because there are more pencils than rulers.

Ron is correct; the ratio is still the same.

5) Brett has drawn some triangles and squares.

The ratio of triangles to squares is 1:3.

a) Are there more triangles or more squares?

More squares than triangles

b) Brett has drawn **eight** shapes.

What has Brett drawn?



c) Brett draws another picture. He draws more than 10 shapes?

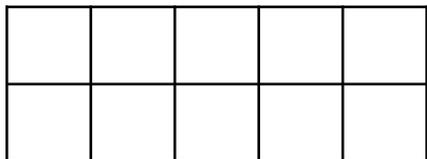
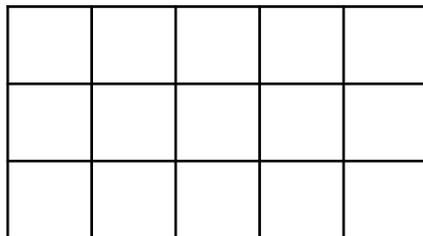


DIVE DEEPER 3

7) The ratio of horses to chickens in a field is 2:5. Here are the horses. Draw the chickens (you may want to use letters instead of drawing the chickens).



8) Copy the diagrams and then shade in squares so that there is a ratio of 1:4



9) A box contains dark, white and milk chocolates.

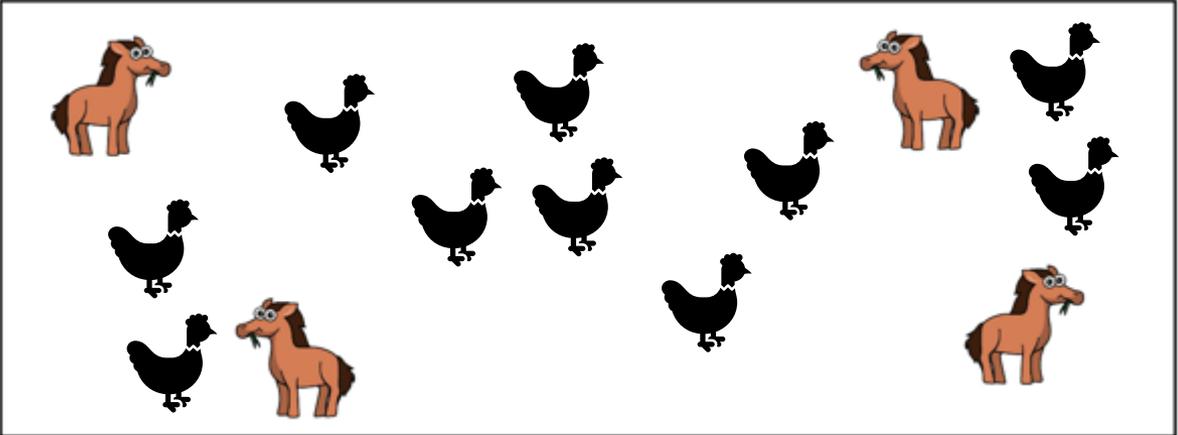
$\frac{3}{8}$ of the box are dark chocolates.

$\frac{1}{2}$ of the box are milk chocolates.

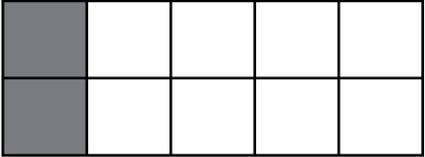
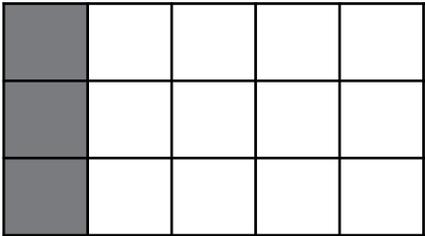
Can you write a ratio of dark : white : milk chocolates?

DIVE DEEPER 3 - ANSWERS

7) The ratio of horses to chickens in a field is 2:5. Here are the horses. Draw the chickens (you may want to use letters instead of drawing the chickens).



8) Copy the diagrams and then shade in squares so that there is a ratio of 1:4



9) A box contains dark, white and milk chocolates.

$\frac{3}{8}$ of the box are dark chocolates.

$\frac{1}{2}$ of the box are milk chocolates.

dark : white : milk
3 : 1 : 4

SELF-ASSESSMENT

- Some will even realise that you can have more than 2 different objects in a ratio
 - Some will be able to represent ratios in several different ways confidently
 - Most will be able to manipulate ratios (both increasing and decreasing their values)
 - All will write ratios and write multiples of that ratio
- 