Multilink cubes: orange, green, white,

LO: I can describe relative quantities as ratios and proportions.

Review

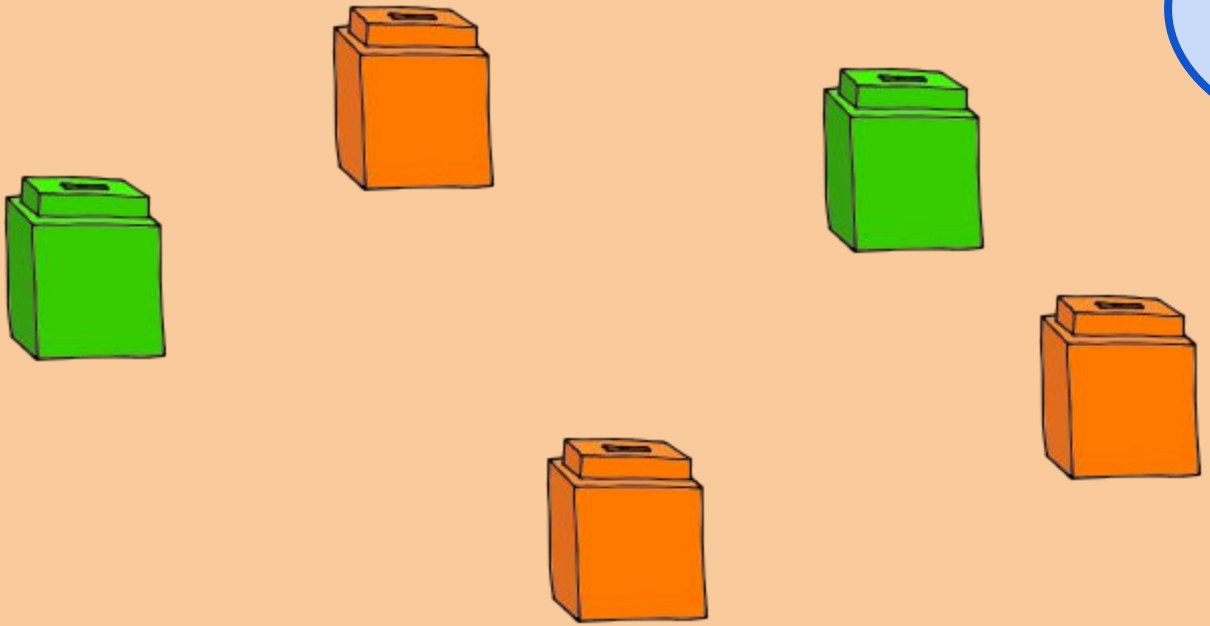
relationship

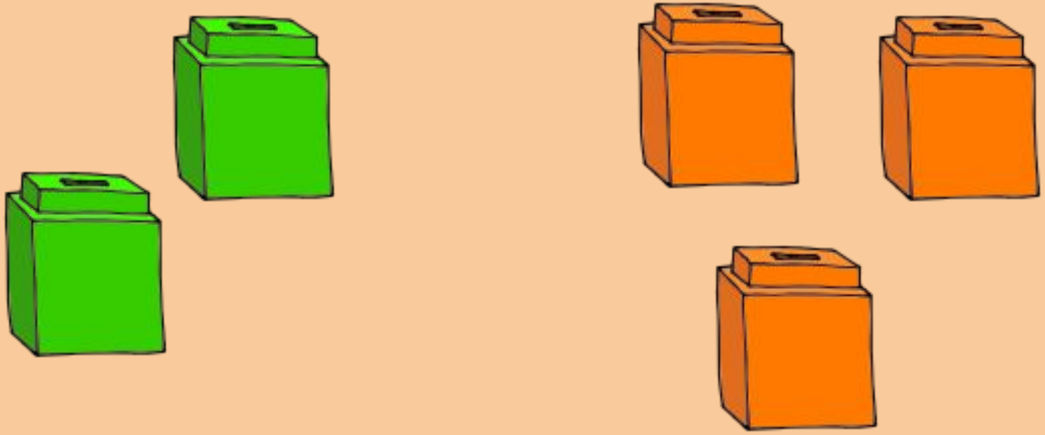
ratio

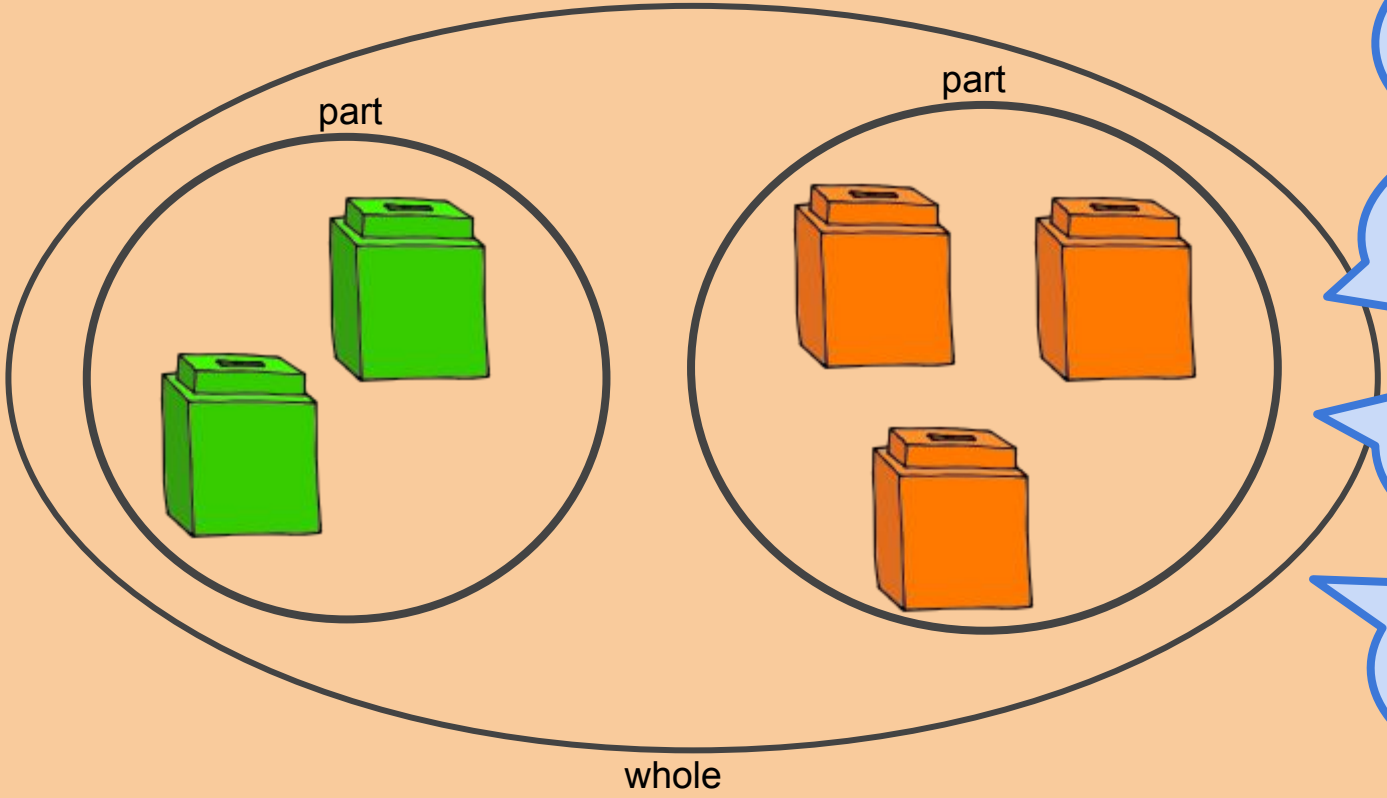
proportion

relative amount

simplify


How can we organise our cubes?



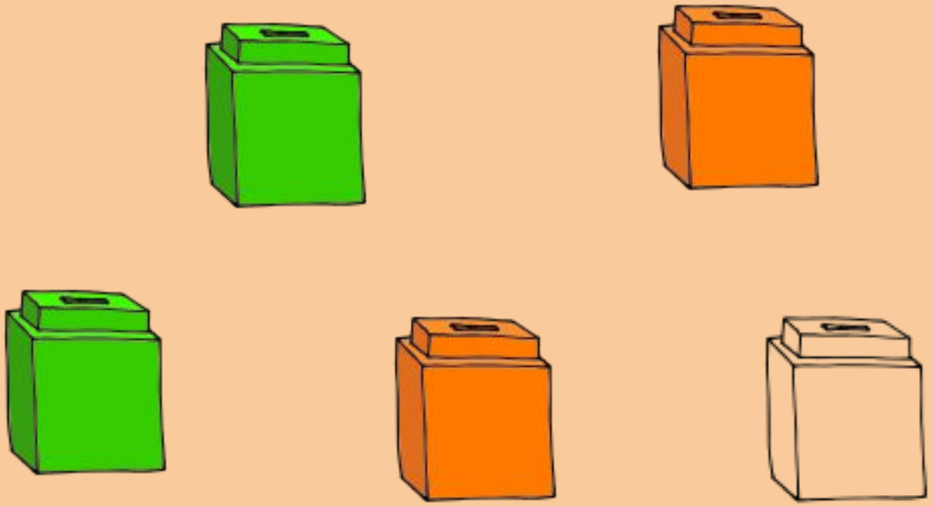


What can you say about the ratio shown here?

For every __ green cubes, there are __ orange cubes.

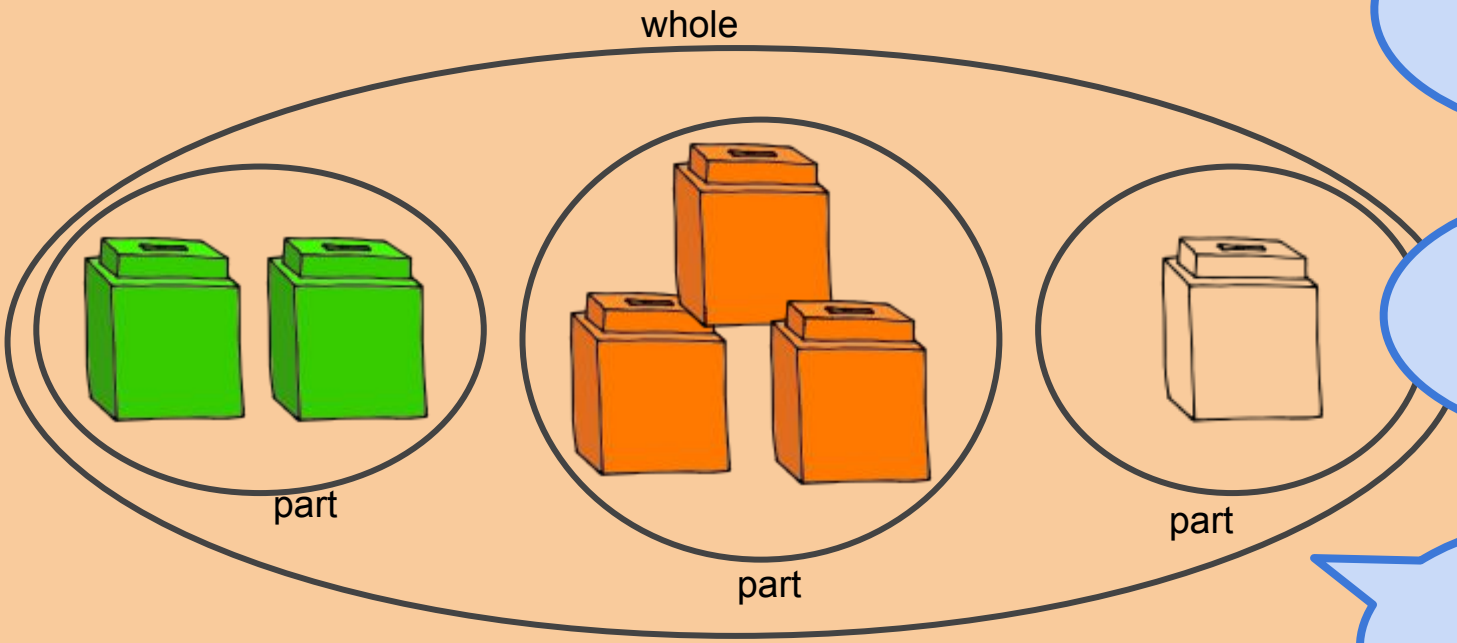
What can you say about the proportion of green cubes?

In every __ cubes, there are __ green cubes.



What if there are three different amounts?

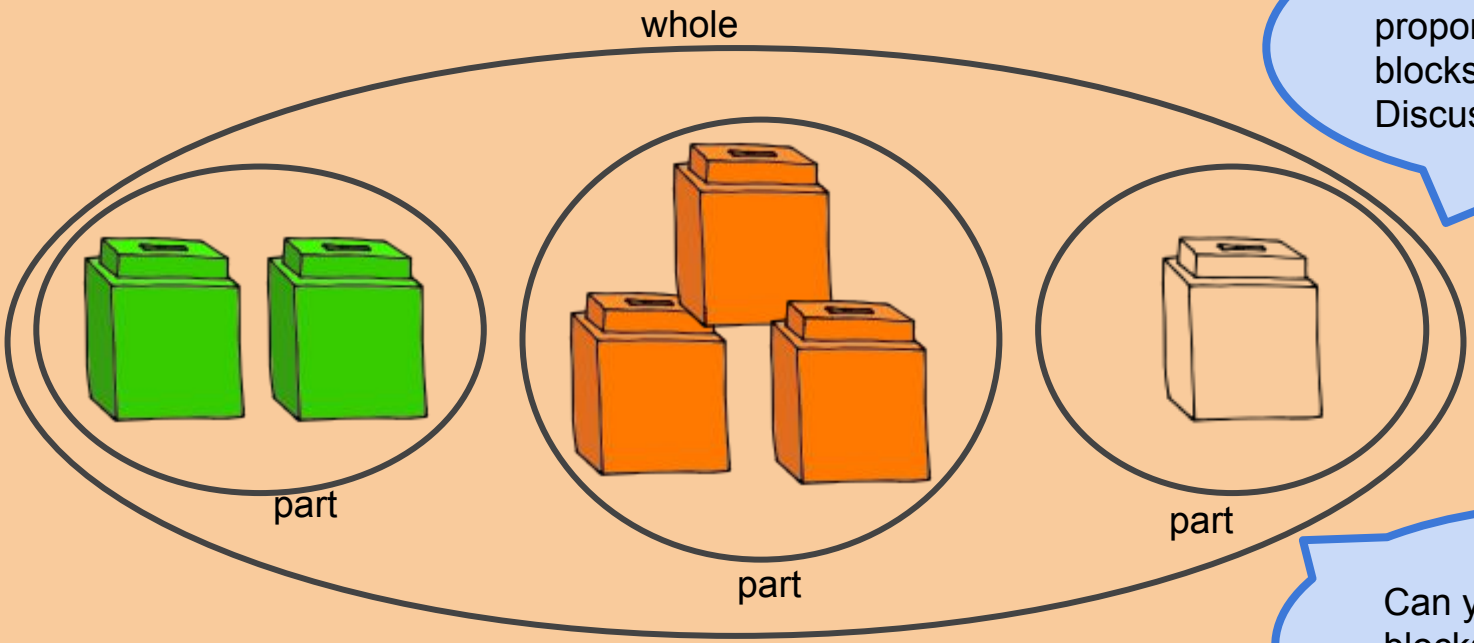
How might you adapt your diagram?



What could you say about the ratio or proportion here?

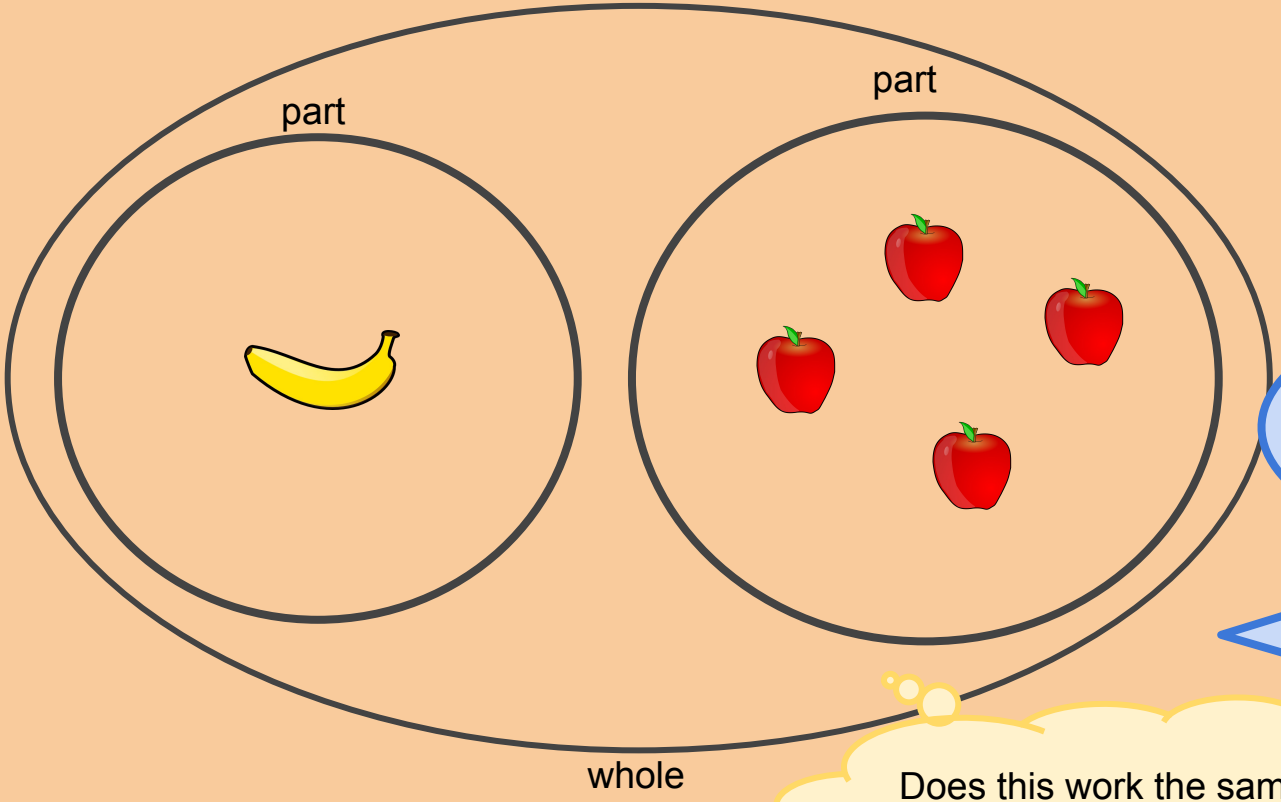
For every...

In every...



Susie says the proportion of green blocks is 2/4 (or 1/2). Discuss.

Can you use your blocks to make her correct?



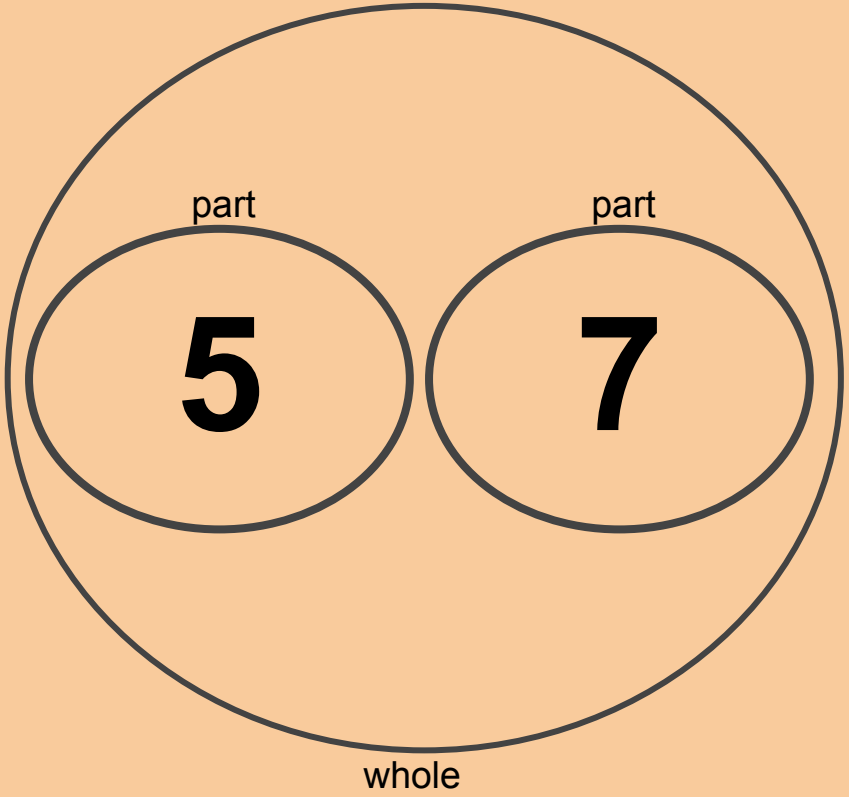
Let's try doing this without cubes.

I have one banana and four apples.

Can you show me this using your diagram and drawings?

What can you say about the proportion of apples?

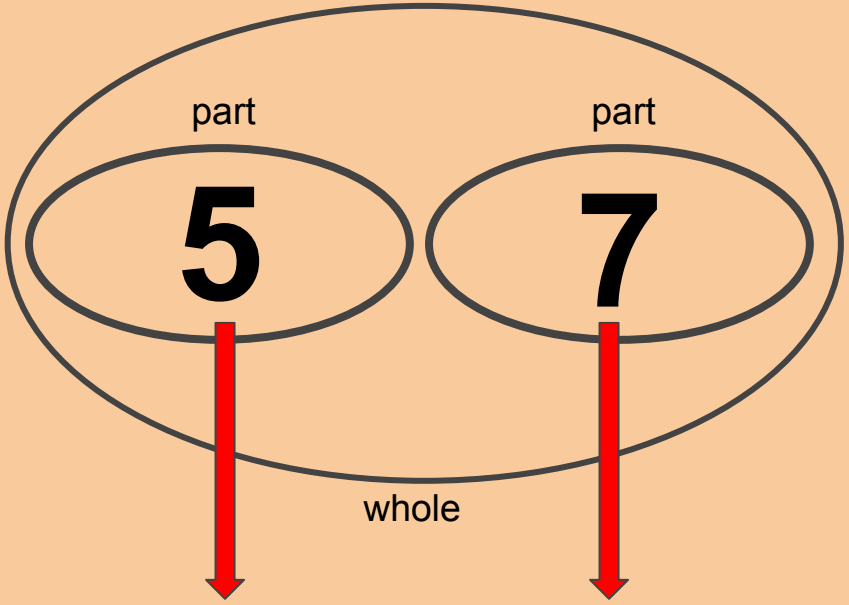
Does this work the same as when we used cubes?



I have 5 velociraptors and 7 parasaurolophi.

Can you make any statements about the ratios or proportions shown here?

Does this work the same as when we used cubes and drawings?

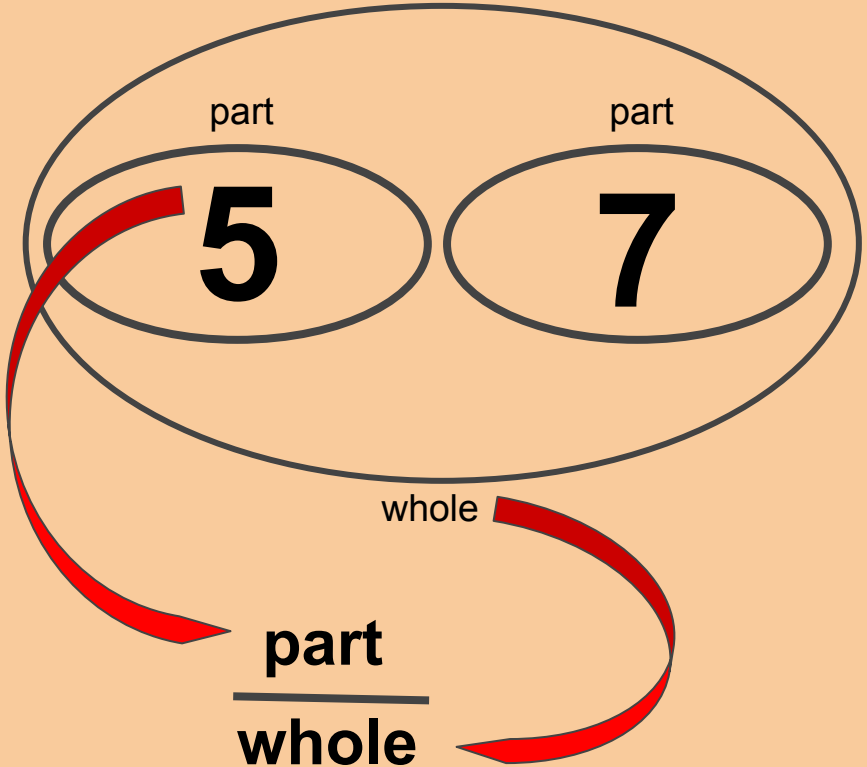


part : part

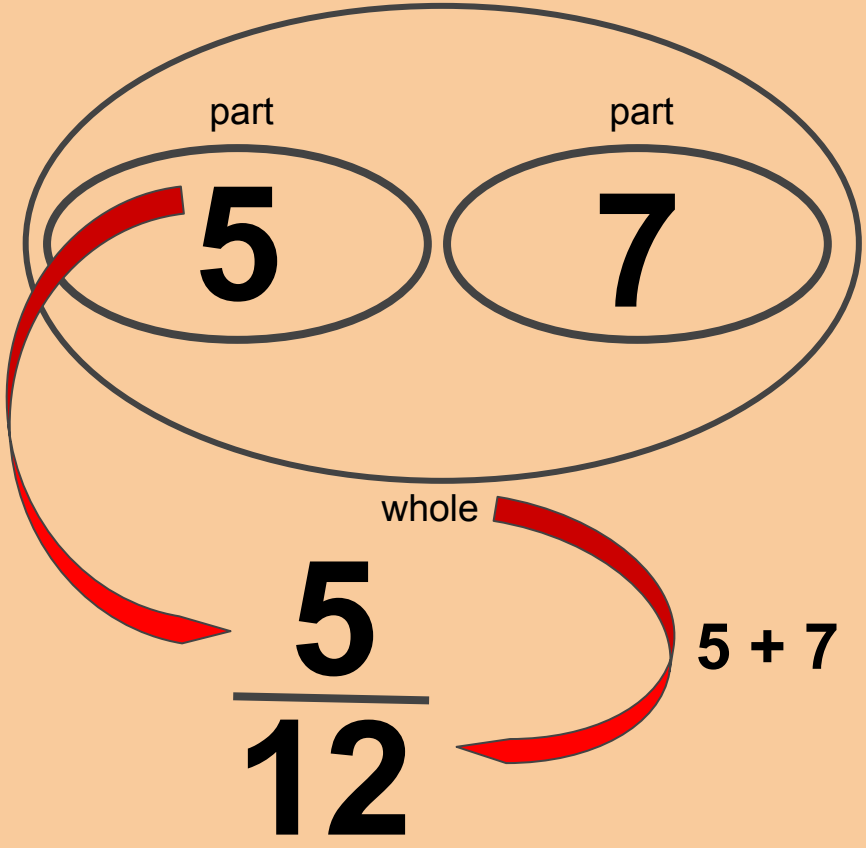
5 : 7

What does this look like?

RATIO!



But - what about **proportion**!?



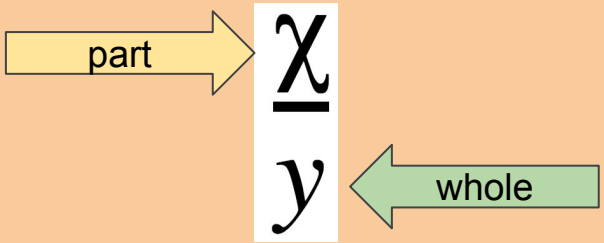
But - what about **proportion**!?

YAY!

Generalisation

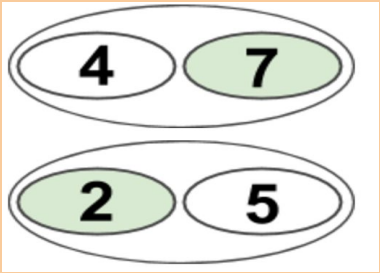
Ratio shows the relationship between parts.

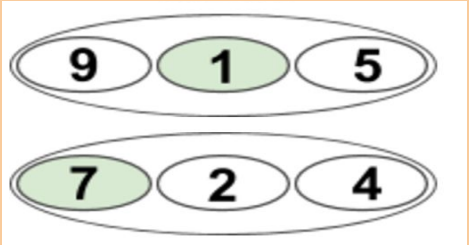
Proportion shows the relationship of one part to the whole.



Know

Write the ratio and find the proportion of the green quantity.





Part of the bar has been shaded.

a) What fraction of the bar is shaded?

b) What fraction of the bar is not shaded?

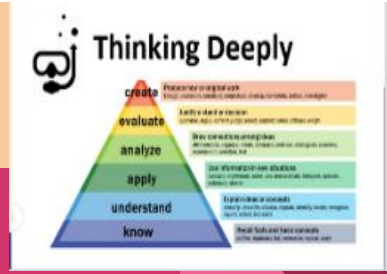
c) Write the ratio of shaded to non-shaded parts.

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

Draw diagrams to represent the relative quantities before answering the question.

There are four bananas, one apple and seven grapes. What is the proportion of fruit other than grapes?

The proportion of biscuits with chocolate chips is ⅓ . What is the ratio to those without chocolate chips?

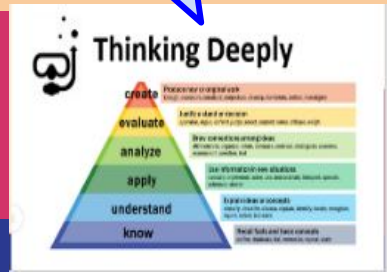


Understand

Sometimes, Always or Never True?

“If the ratio is 1:2, then the proportion is ½.”

Draw it to prove it.



Apply

Fatima has pens, pencils and felt tips in her pencil case.

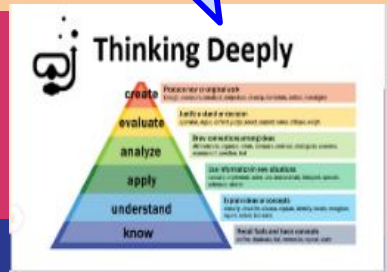
The proportion of pens is ⅕.

What is the ratio of pens to pencils and felt tips?

Is there more than one option?

Can you suggest any real amounts that might be in her pencil case?

Create your own questions for ratio and proportion.



Reflection

What have you discovered about how ratios and proportions relate?