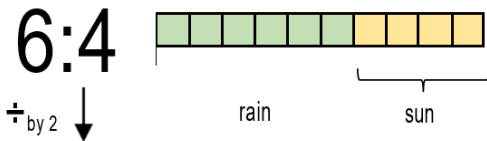


Ratio Knowledge Organiser

Simplifying a ratio

Cancel down the ratio to its lowest form

"For every 6 days of rain there are 4 days of sun"



÷ by 2 ↓



Find the biggest common factor that goes into all parts of the ratio

For 6 and 4 the biggest factor (number that multiplies into them is 2)

"For every 3 days of rain there are 2 days of sun" – when this happens twice the ratio becomes 6:4.

Keywords

Ratio: a statement of how two numbers compare

Equivalent: of equal value

Proportion: a statement that links two ratios

Integer: whole number, can be positive, negative or zero.

Fraction: represents how many parts of a whole.

Denominator: the number below the line on a fraction.

The number represent the total number of parts..

Numerator: the number above the line on a fraction. The top number.

Write and simplify ratios

Simplify these ratios



210:110

60:15


32:8

30:20

39:18

Convert between ratio and fractions


Ratio as a fraction



Trees: Flowers

3 : 7

Trees



Ratio

There are 3 parts for trees

Flowers

Fraction of trees

$$\frac{3}{10}$$

Fraction

Number of parts of in group

Total number of parts

Tree parts 3 + Flower parts 7 = 10

Yellow counters to the number of blue counters is 3 : 7. What fraction of all the counters are yellow and what fraction are blue?

In a bag, 8/11 of the counters are orange and the rest are Gold.

What is the ratio of the number of green counters : the number of red counters?

Share quantities in a given ratio

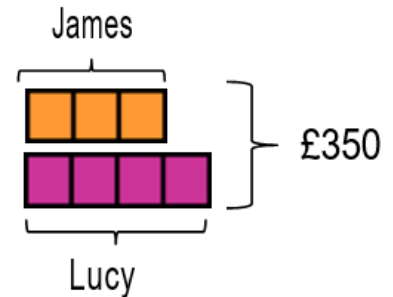
Sharing a whole into a given ratio

James and Lucy share £350 in the ratio 3:4.
Work out how much each person earns

Model the Question

James: Lucy

3 : 4



Find the value of one part

Whole: £350

7 parts to share between
(3 James, 4 Lucy)

$$£350 \div 7 = £50$$

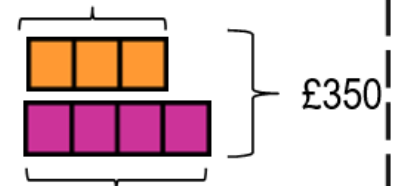
□ = one part
= £50

Put back into the question

James: Lucy

(x 50) 3 : 4 (x 50)
→ £150 : £200 ←

$$\text{James} = 3 \times £50 = £150$$



Asim and Hashim win £900.

They share the amount in the ratio 2:5, how much do they each get?