

Building Blocks - Combining Ratios



Block 1

Use equivalent ratios to find the missing information.

a) $3 : 4$

b) $7 : 9$

c) $36 : 100$

d) $\quad : 13$

$15 :$

$\quad : 72$

$9 :$

$56 : 52$

Simplify the ratios

a) $12 : 22$

c) $48 : 27$

b) $64 : 40$

d) $63 : 210$

Block 2

Given that $x : y = 4 : 1$ and $y : z = 1 : 7$
Find the ratio $x : y : z$

Given that $a : b = 9 : 1$ and $b : c = 2 : 5$
Find the ratio $a : b : c$

A bag contains red, blue and yellow counters such that
 $\text{red} : \text{blue} = 2 : 3$
 $\text{blue} : \text{yellow} = 6 : 5$
The number of red counters in the bag is 24.
Calculate the total number of counters in the bag.

Block 3

Given that $\frac{a}{b} = \frac{3}{5}$ and $\frac{b}{c} = \frac{2}{7}$, find $a : b : c$

A box contains only red, blue and green pens.
The ratio of red pens to blue pens is $5 : 4$.
The ratio of blue pens to green pens is $3 : 7$.
Calculate the percentage of pens that are blue.

A zoo counts its animals.
The ratio of antelope to snakes is $2 : 7$
The ratio of monkeys to snakes is $3 : 4$
There are 26 more monkeys than antelope.
Work out the number of snakes in the zoo.

Building Blocks - Combining Ratios



Block 1

Use equivalent ratios to find the missing information.

- a) $3 : 4$ b) $7 : 9$ c) $36 : 100$ d) $14 : 13$
 $15 : 20$ $56 : 72$ $9 : 25$ $56 : 52$

Simplify the ratios

- a) $12 : 22$ $6 : 11$ c) $48 : 27$ $16 : 9$
b) $64 : 40$ $8 : 5$ d) $63 : 210$ $3 : 10$

Block 2

Given that $x : y = 4 : 1$ and $y : z = 1 : 7$
Find the ratio $x : y : z$ $4 : 1 : 7$

Given that $a : b = 9 : 1$ and $b : c = 2 : 5$
Find the ratio $a : b : c$ $18 : 2 : 5$

A bag contains red, blue and yellow counters such that
red : blue = $2 : 3$
blue : yellow = $6 : 5$
The number of red counters in the bag is 24.
Calculate the total number of counters in the bag. **90**

Block 3

Given that $\frac{a}{b} = \frac{3}{5}$ and $\frac{b}{c} = \frac{2}{7}$, find $a : b : c$ $6 : 10 : 35$
 $a : b = 3 : 5$ $b : c = 2 : 7$

A box contains only red, blue and green pens.
The ratio of red pens to blue pens is $5 : 4$. $15 : 12 : 28$
The ratio of blue pens to green pens is $3 : 7$.
Calculate the percentage of pens that are blue. **21.8%**

A zoo counts its animals.
The ratio of antelope to snakes is $2 : 7$
The ratio of monkeys to snakes is $3 : 4$
There are 26 more monkeys than antelope.
Work out the number of snakes in the zoo.

$8 : 28 : 21$ **56 snakes**