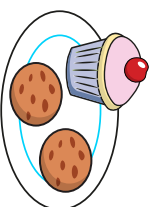


# Calculating ratio

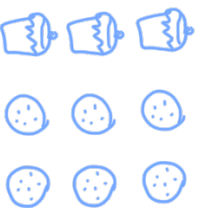
1

Eva is baking cakes and cookies.

For every 1 cake, she will bake 2 cookies.



a) If Eva bakes 3 cakes, how many cookies will she bake?



6

b) If Eva bakes 10 cookies, how many cakes will she bake?



5

2

The ratio of red to yellow counters is 2 : 3

There are 20 counters in total.

How many counters of each colour are there?

You can colour the counters to help you.



yellow 12

red 8

3

Tom has 5 green cubes for every 3 yellow cubes.

He has 16 cubes in total.

Draw a diagram to represent this.



4

Esther is building a tower of cubes.

The ratio of red to yellow cubes is 3 : 1

The tower has 6 yellow cubes. How many red cubes are there?



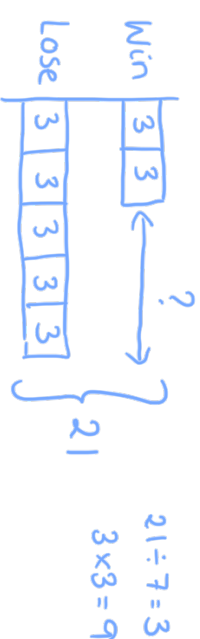
18

5

Nijah plays 21 games of chess.

For every 2 games she wins, she loses 5 games.

How many more games does she lose than win?



9

6

- a) Huan is making a drink by mixing 1 part juice with 5 parts water.

Complete the table to show the amounts he would need to use.

Juice	Water
1 litre	5 litres
2 litres	10 litres
4 litres	20 litres
100 ml	500 ml
200 ml	1 litre
300 ml	1.5 litres
6 litres	30 litres
150 ml	750 ml

$$1\text{ L} = 1000\text{ ml}$$

- b) Huan makes 1 litre 500 ml of drink in total.

How much juice and water does he need to use?

juice

250 ml

water

1,250 ml

7

A group of students study French or German in the ratio 3 : 7

- a) Which subject has the most students? German
- b) Draw a diagram to represent this.



- c) There are 80 students in total.

How many more students study German than French?

$$\begin{array}{l} \text{French} \quad \boxed{8} \boxed{8} \boxed{8} \quad \leftarrow ? \\ \text{German} \quad \boxed{8} \boxed{8} \boxed{8} \boxed{8} \boxed{8} \boxed{8} \boxed{8} \quad \rightarrow ? \\ \hline 80 \end{array}$$

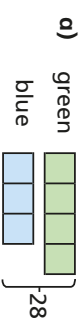
$$80 \div 10 = 8$$

$$4 \times 8 = 32$$

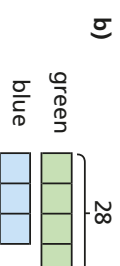
32

8

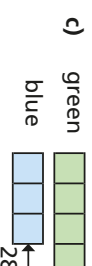
Describe a situation for each bar model.



The ratio of green to blue sweets is 4 : 3. There are 28 sweets in total.



The ratio of green to blue sweets is 4 : 3. There are 28 green sweets.



The ratio of green to blue sweets is 4 : 3. There are 28 more green sweets than blue sweets.

Compare answers with a partner.

What is the same and what is different?