## 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?

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


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.


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?


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?


3 Tom has 5 green cubes for every 3 yellow cubes.
He has 16 cubes in total.
Draw a diagram to represent this.

yellow 12


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 |
| 2 litres | 5 litres |
|  | 4 litres |
|  | 100 litres |
| 200 ml | 20 litres |
| 300 ml | 500 ml |
| 6 litres | 1.5 litres |
| 150 ml | 30 litres |

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

How much juice and water does he need to use?


A group of students study French or German in the ratio 3:7
a) Which subject has the most students? German $\qquad$
b) Draw a diagram to represent this.

Compare answers with a partner.
What is the same and what is different?
$\square$
c) There are 80 students in total.

How many more students study German than French?


8 Describe a situation for each bar model.


