

# Divide by 1 and itself

1 Annie has 5 cookies and some plates.



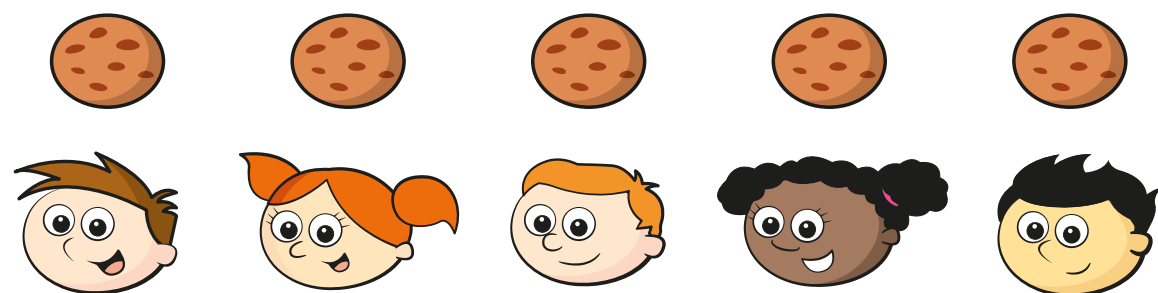
She wants to put 1 cookie on each plate.

a) How many plates will she need?

b) Complete the calculation.

$$\boxed{5} \div \boxed{1} = \boxed{5}$$

2 Annie has 5 more cookies.



She has 5 friends.

She shares the cookies equally between her 5 friends.

a) How many cookies does each child get?

b) Complete the calculation.

$$\boxed{5} \div \boxed{5} = \boxed{1}$$

3 a) Complete the calculations.

$$8 \times 1 = \boxed{8}$$

$$13 \times 1 = \boxed{13}$$

$$20 \times 1 = \boxed{20}$$

$$8 \div 1 = \boxed{8}$$

$$13 \div 1 = \boxed{13}$$

$$20 \div 1 = \boxed{20}$$

b) What do you notice about multiplying and dividing by 1?

You get the same answer.

c) Use what you have noticed to complete these calculations.

$$7 \times 1 = 7 \div \boxed{1}$$

$$10 \div 1 = 10 \times \boxed{1}$$

$$\boxed{18} \times 1 = 18 \div 1$$

4 Tick all the cards that have an answer of 1

$$\boxed{7 \div 1}$$

$$\boxed{10 \div 10} \checkmark$$

$$\boxed{5 \div 1}$$

$$\boxed{9 \div 9} \checkmark$$

$$\boxed{18 \div 18} \checkmark$$

$$\boxed{10 \div 2}$$

$$\boxed{6 \div 1}$$

$$\boxed{1 \times 1} \checkmark$$

$$\boxed{17 \div 1}$$

How do you know if a division has an answer of 1?



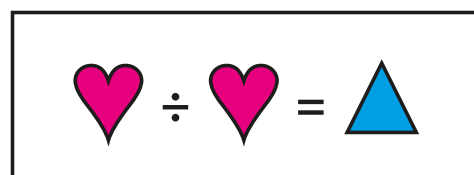
5 Write  $>$ ,  $<$  or  $=$  to compare the calculations.

- a)  $4 \times 0$   $<$   $5 \div 1$       d)  $13 \div 1$   $>$   $31 \times 0$   
 b)  $24 \times 1$   $=$   $24 \div 1$       e)  $8 \div 8$   $=$   $9 \div 9$   
 c)  $1 \times 9$   $=$   $9 \div 1$       f)  $10 \div 1$   $>$   $10 \div 10$

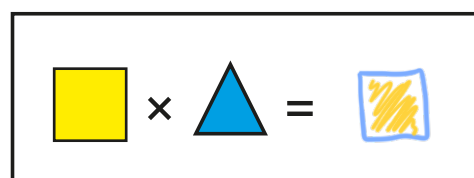
6 Work out these calculations.

- a)  $8 \div 4 \div 1 =$  2  
 b)  $25 \div 1 \div 5 =$  5  
 c)  $9 \times 4 \div 1 =$  36  
 d)  $12 \div 1 \times 4 =$  48

7



Complete this calculation.

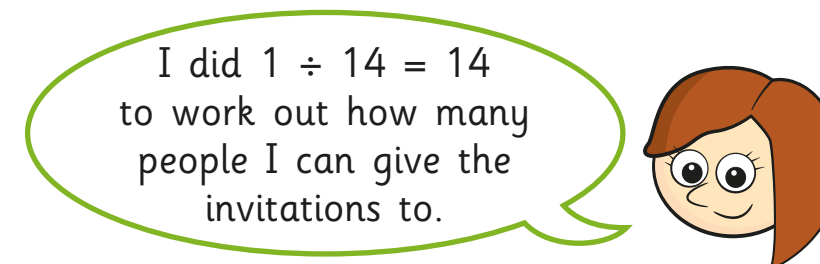


How did you work this out?

8 Rosie has 14 birthday invitations.

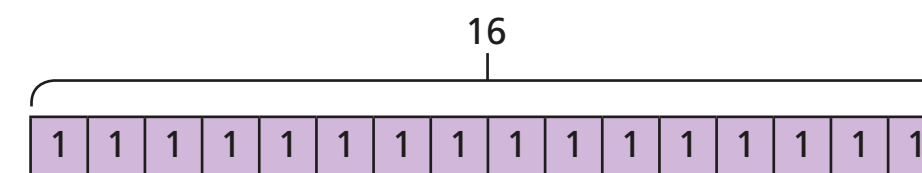
She wants to give them out to children in her class.

Each child will get 1 invitation each.

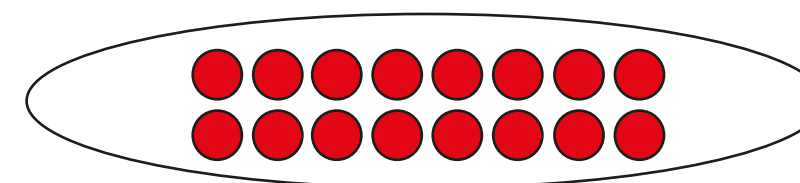


What mistake has Rosie made?

9 Explain how each image shows  $16 \div 1$



16 grouped into 1s

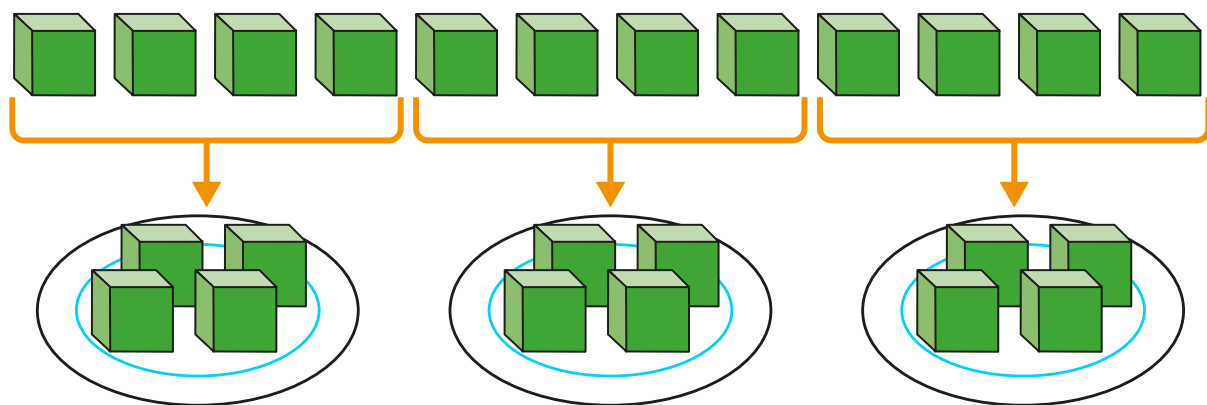


16 shared into 1 group

# Divide by 3



1



Complete the sentences.

There are 12 cubes.

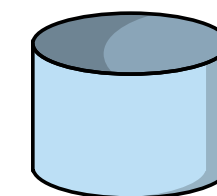
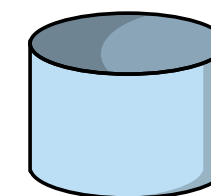
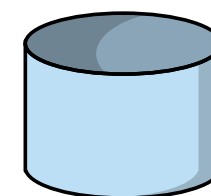
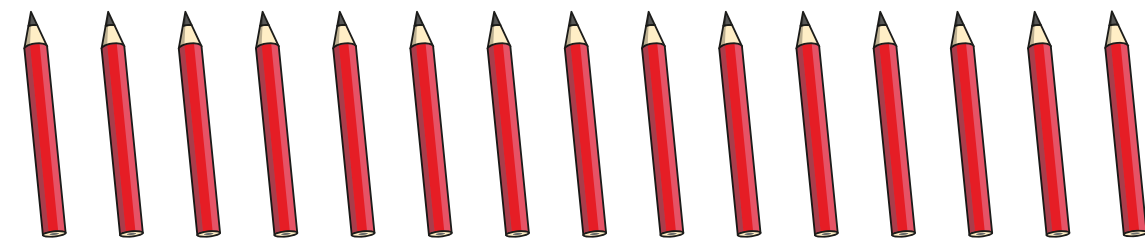
There are  plates.

Each plate has  cubes.

12 divided into  equal groups is

2 Mo has 15 pencils.

He shares them equally into 3 pots.

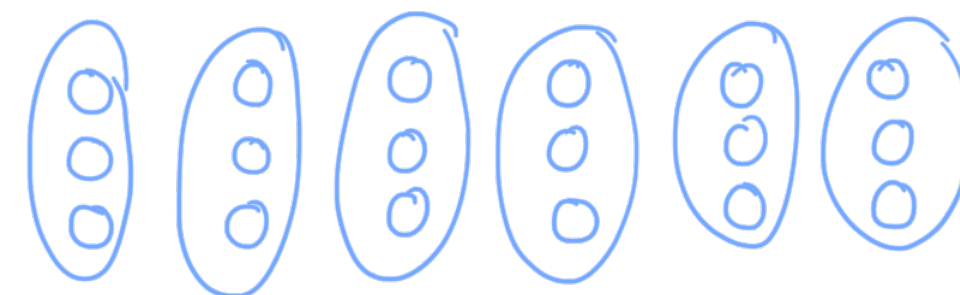


How many pencils will there be in each pot?

There will be  pencils in each pot.

3 Divide 18 counters into groups of 3 counters.

Draw a picture to show what this would look like.



How many groups did you draw?



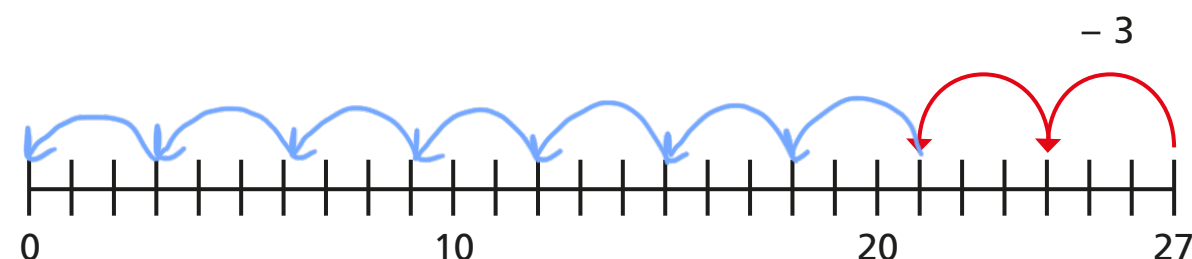
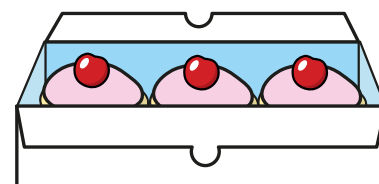
4

There are 27 cakes.

A box can hold 3 cakes.

How many boxes of 3 cakes can be filled?

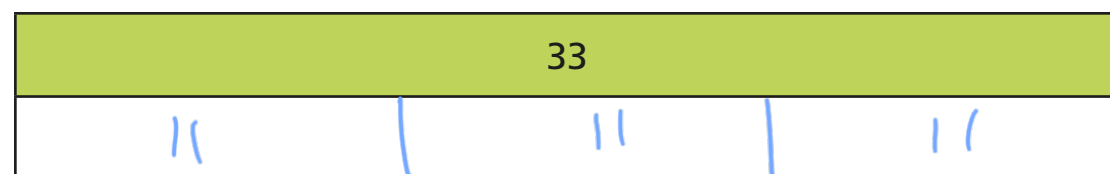
Use the number line to help you.



9 boxes of 3 cakes can be filled.

5

Complete the bar model for the division  $33 \div 3 = 11$



Is there more than one way to do this?

6

Complete the division statements for each problem.

a) Esther has 21 balloons.

She puts them into 3 party bags.

How many balloons are in each party bag?

$$21 \div 3 = 7$$

b) Nijah has 36 apples.

In each box there are 3 apples.

How many boxes are there?

$$36 \div 3 = 12$$

c) 24 children stand in groups of 3

How many groups are there?

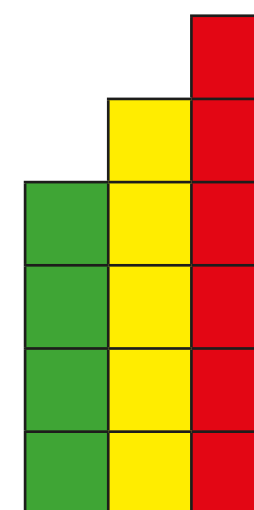
$$24 \div 3 = 8$$

7

Numbers that follow each other when you count are called consecutive numbers.

Three consecutive numbers can form a staircase.

Here is 4, 5 and 6



When you add three consecutive numbers, the total can always be divided equally by 3

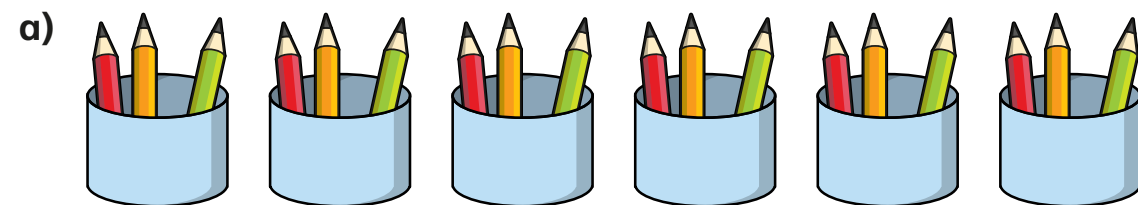
Is this statement correct?

Talk about it with a partner.



# Multiply by 3

1 Complete the sentences.

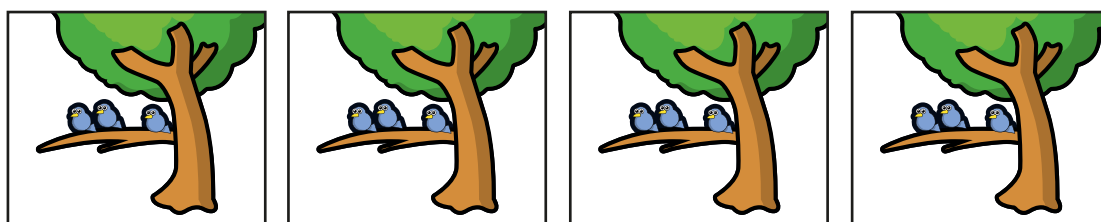


There are  equal groups of

$$\boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} = \boxed{18}$$

$$\boxed{6} \times \boxed{3} = \boxed{18}$$

b)

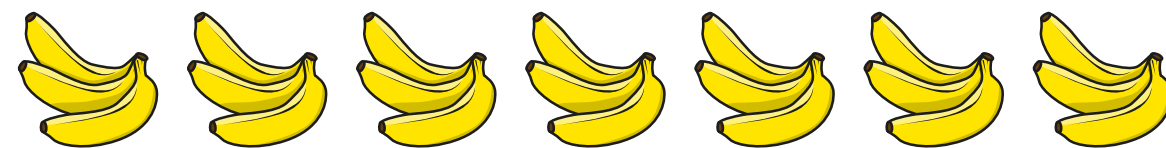


There are  equal groups of

$$\boxed{12} = \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3}$$

$$\boxed{12} = \boxed{4} \times \boxed{3}$$

c)



There are  equal groups of

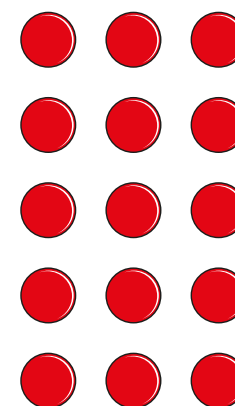
$$\boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} = \boxed{21}$$

$$\boxed{7} \times \boxed{3} = \boxed{21}$$

Could you write the number sentences in a different way?

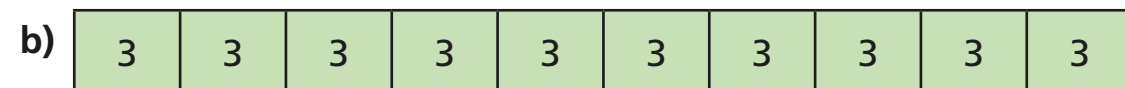
2 Write two multiplication sentences for each part of the question.

a)



$$\boxed{3} \times \boxed{5} = \boxed{15}$$

$$\boxed{5} \times \boxed{3} = \boxed{15}$$



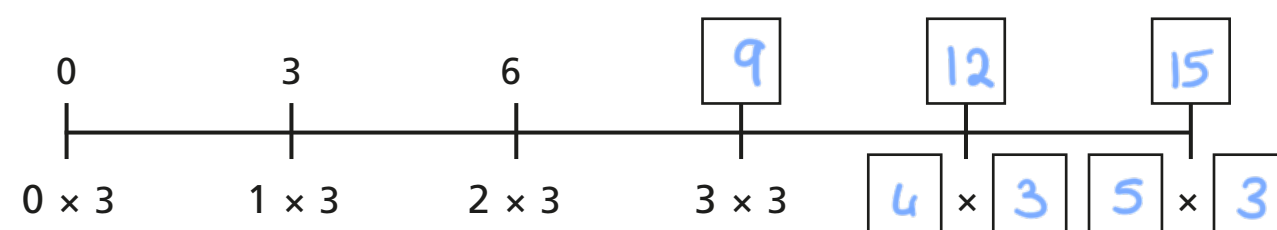
$$10 \times 3 = 30$$

$$3 \times 10 = 30$$

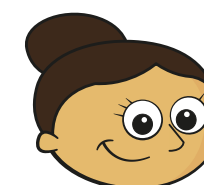
3 Complete the diagram.

<p>Number story</p> <p>E.g. There are 6 plates with 3 cupcakes on each plate.</p>	<p>Bar model</p>
<p><math>6 \times 3 = 18</math></p>	
<p>Addition sentence</p> <p><math>3 + 3 + 3 + 3 + 3 + 3 = 18</math></p>	<p>Draw it</p>

4 Complete the number line.



5



6 lots of 3  
is 6 more than  
5 lots of 3

Do you agree with Dora? NO

Explain why.

$$6 \times 3 = 3 + 3 + 3 + 3 + 3 + 3$$

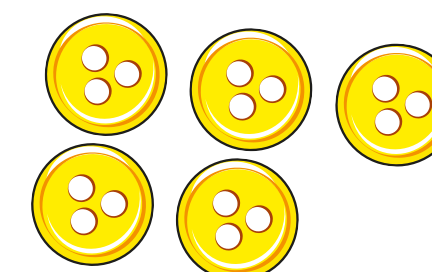
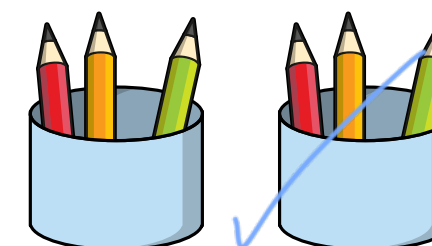
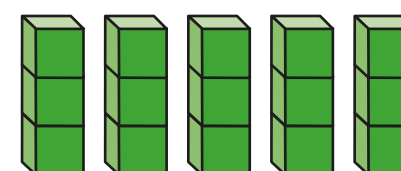
$$5 \times 3 = 3 + 3 + 3 + 3 + 3 \quad \text{so its 3 more.}$$

6

Which is the odd one out?

Tick your answer.

E.g.



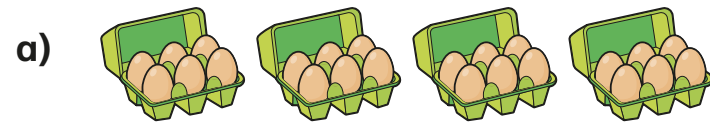
Explain your answer.

It shows  $2 \times 3$ , the others show  $5 \times 3$  or  $3 \times 5$

Is there more than one answer?

# Multiply and divide by 6

1 Complete the sentences.



There are  boxes.

There are  eggs in each box.

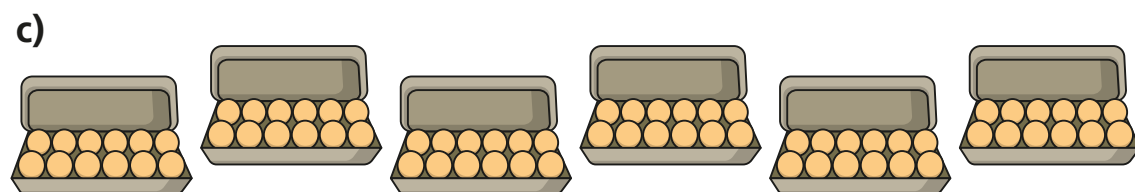
There are  eggs altogether.



There are  spiders.

There are  legs on each spider.

There are  legs altogether.

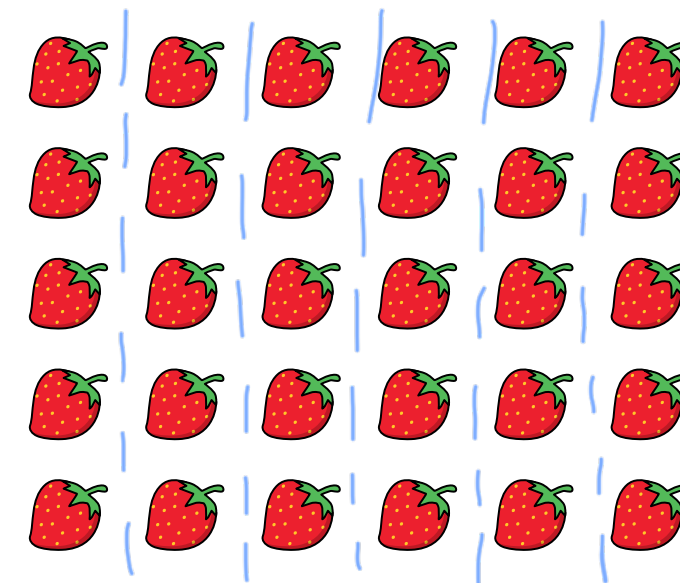


There are  boxes.

There are  eggs in each box.

There are  eggs altogether.

2 a) Rosie has 30 strawberries.



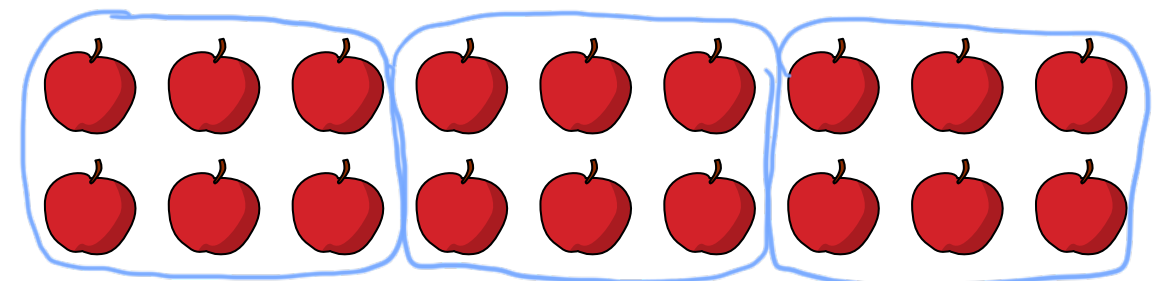
She shares them equally between 6 bowls.

a) Draw on the picture to show how Rosie shares the strawberries.

b) How many strawberries does Rosie put in each bowl?

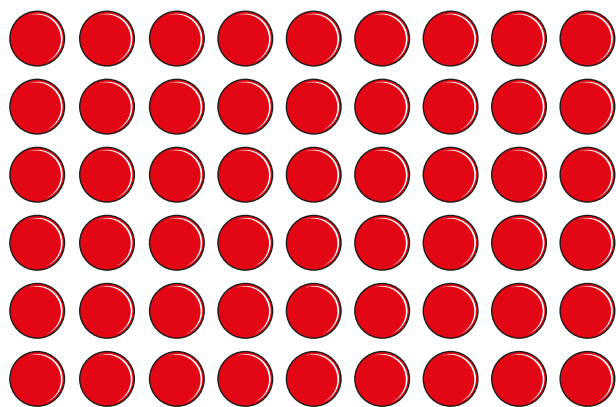
Rosie puts  strawberries in each bowl.

3 These apples are being put into bags of 6



How many bags are needed?

- 4 Complete the number sentences to describe the array.



$$\boxed{9} \times 6 = \boxed{54}$$

$$\boxed{6} \times \boxed{9} = \boxed{54}$$

$$\boxed{54} \div 6 = \boxed{9}$$

$$\boxed{54} \div \boxed{9} = \boxed{6}$$

- 5 A red ribbon is 6 cm long.  
A yellow ribbon is 7 times as long as the red ribbon.  
How long is the yellow ribbon?

The yellow ribbon is  cm long.



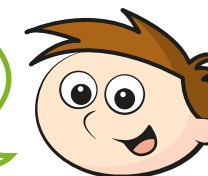
- 6 There are 66 children sitting in rows.  
There are 6 children in each row.  
How many rows are there?

- 7 Nails come in boxes of 100  
A crate holds 6 boxes.  
A shop orders 4,800 nails.  
How many **crates** does the shop order?



- 8 Teddy has an odd number of counters.

I can share  
my counters into 6  
equal groups.



Do you agree with Teddy? No

Why?

All numbers in the 6 times-table are even.

# 6 times-table and division facts

1 Write the multiplication fact to work out how many there are in total.

a)



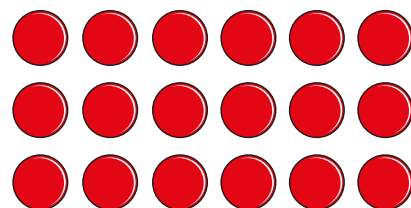
$$\boxed{4} \times \boxed{6} = \boxed{24}$$

b)



$$\boxed{7} \times \boxed{6} = \boxed{42}$$

2



Complete the facts represented by the array.

$$\boxed{3} \times \boxed{5} = \boxed{15}$$

$$\boxed{5} \times \boxed{3} = \boxed{15}$$

$$\boxed{15} \div \boxed{3} = \boxed{5}$$

$$\boxed{15} \div \boxed{5} = \boxed{3}$$

3

Fill in the gaps.

3 times-table

$$0 \times 3 = \boxed{\phantom{00}}$$

$$1 \times 3 = 3$$

$$2 \times 3 = 6$$

$$3 \times 3 = 9$$

$$4 \times 3 = \boxed{\phantom{00}}$$

$$5 \times 3 = \boxed{\phantom{00}}$$

$$6 \times 3 = 18$$

6 times-table

$$0 \times 6 = \boxed{\phantom{00}}$$

$$1 \times 6 = \boxed{\phantom{00}}$$

$$2 \times 6 = 12$$

$$3 \times 6 = \boxed{\phantom{00}}$$

$$4 \times 6 = 24$$

$$5 \times 6 = \boxed{\phantom{00}}$$

$$6 \times 6 = \boxed{\phantom{00}}$$

What patterns can you see?

Talk about it with a partner.

4

Complete the number tracks.

30	36	42	48	54	60	66	72
----	----	----	----	----	----	----	----

36	30	24	18	12	6	0
----	----	----	----	----	---	---

5 Complete the calculations.

a)  $3 \times 6 = 18$

g)  $6 \times 6 = 36$

b)  $2 \times 6 = 12$

h)  $42 \div 6 = 7$

c)  $6 \times 4 = 24$

i)  $6 \times 8 = 48$

d)  $6 \div 6 = 1$

j)  $66 \div 6 = 11$

e)  $11 \times 6 = 66$

k)  $10 \times 6 = 60$

f)  $5 \times 6 = 30$

l)  $10 \times 3 = 30$

6 Colour the multiples of 6

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80

Use the grid to complete the calculations.

$72 \div 6 = 12$

$78 \div 6 = 13$

7 Sort the number cards into the diagram.

18	15	36	16	20	6	72	63
----	----	----	----	----	---	----	----

	Multiples of 6	Not multiples of 6
Even numbers	18 36 6 72	16 20
Odd numbers		15 63

Are any of the boxes empty?

Compare answers with a partner.

8 Jack is thinking of two whole numbers.

The sum of the numbers is 13

The difference between the numbers is 1

What is the product of the numbers?

The product of the numbers is 42

