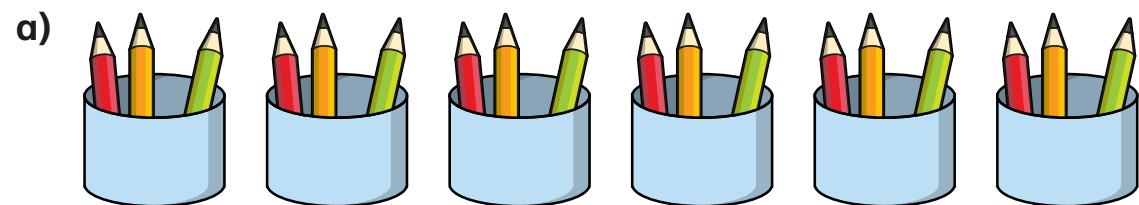


Multiply by 3

1 Complete the sentences.

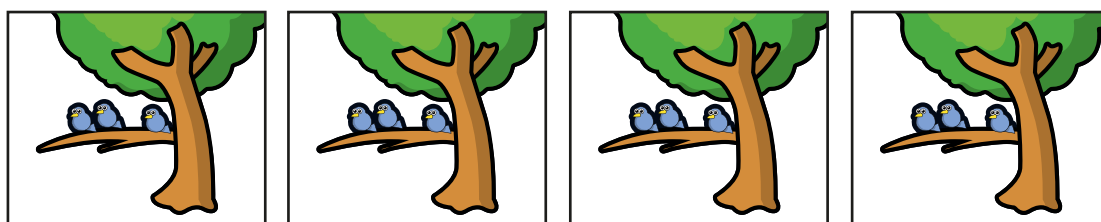


There are equal groups of

$$\square + \square + \square + \square + \square + \square = \square$$

$$\square \times \square = \square$$

b)

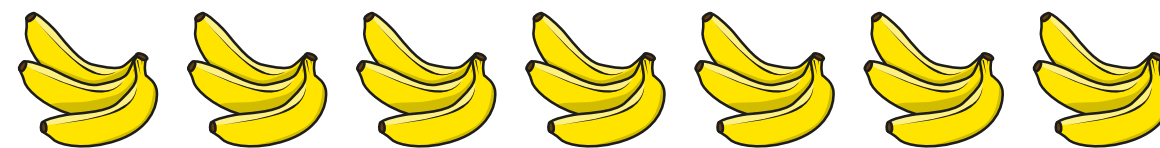


There are equal groups of

$$\square = \square + \square + \square + \square$$

$$\square = \square \times \square$$

c)



There are equal groups of

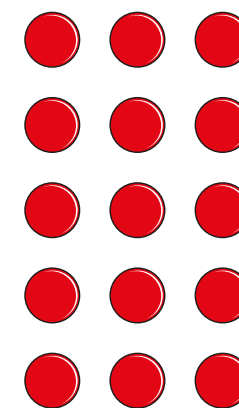
$$\square + \square + \square + \square + \square + \square + \square = \square$$

$$\square \times \square = \square$$

Could you write the number sentences in a different way?

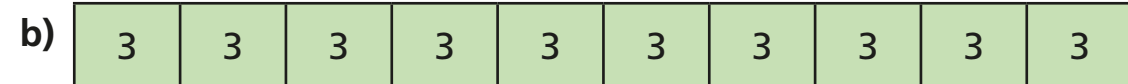
2 Write two multiplication sentences for each part of the question.

a)



$$\square \times \square = \square$$

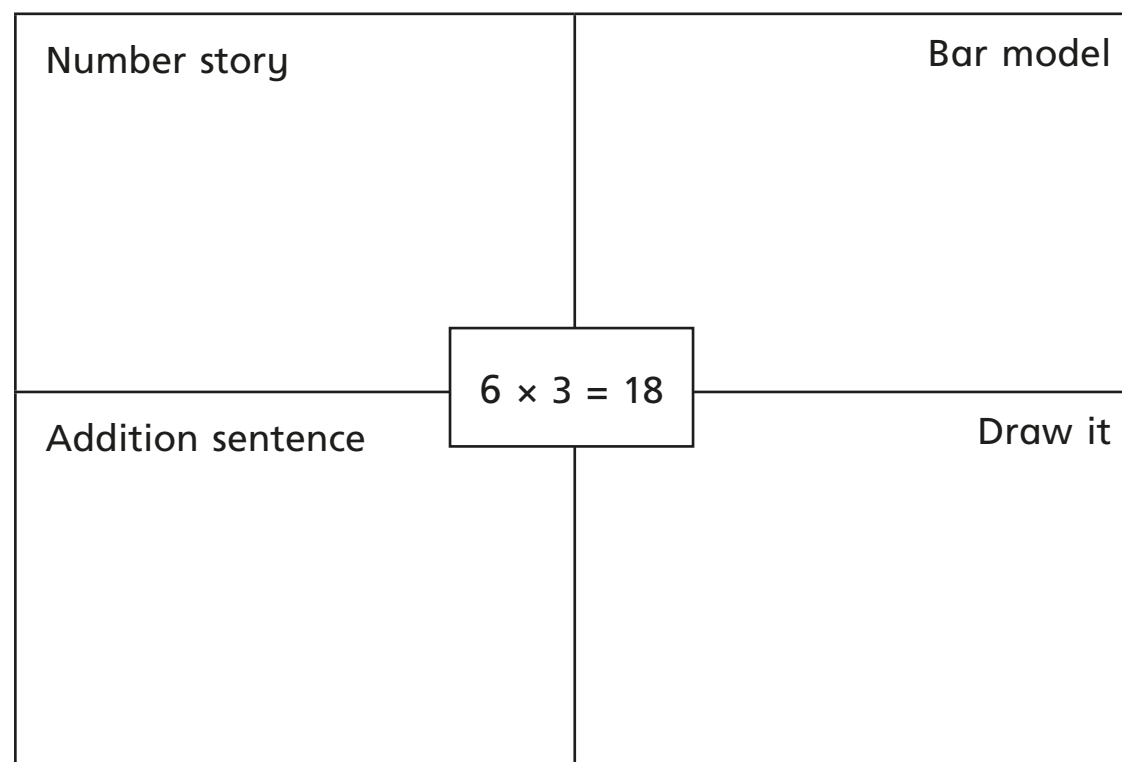
$$\square \times \square = \square$$



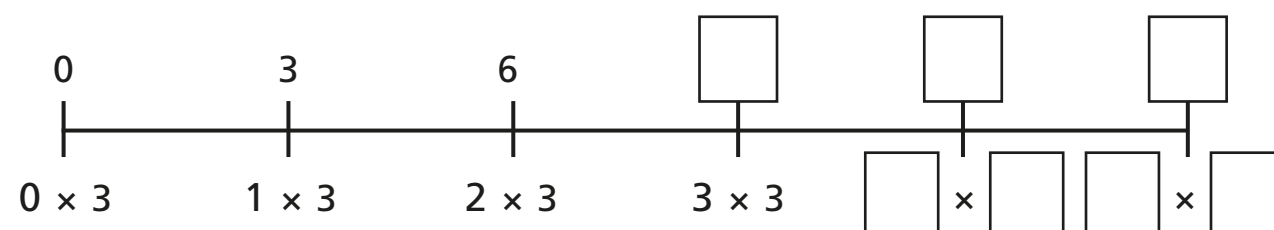
$$\square \times \square = \square$$

$$\square \times \square = \square$$

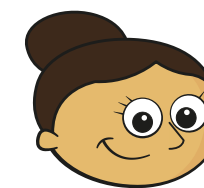
3 Complete the diagram.



4 Complete the number line.



5



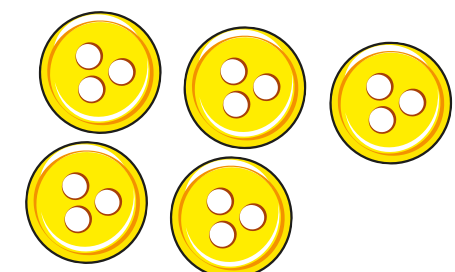
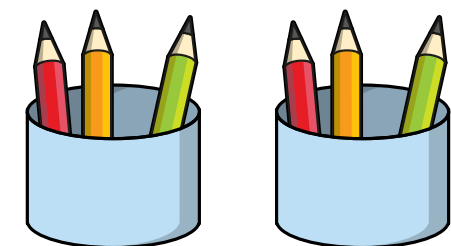
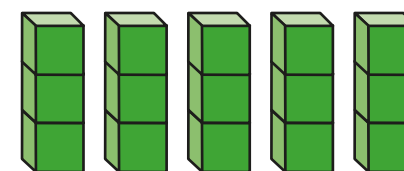
6 lots of 3
is 6 more than
5 lots of 3

Do you agree with Dora? _____

Explain why.

6 Which is the odd one out?

Tick your answer.



Explain your answer.

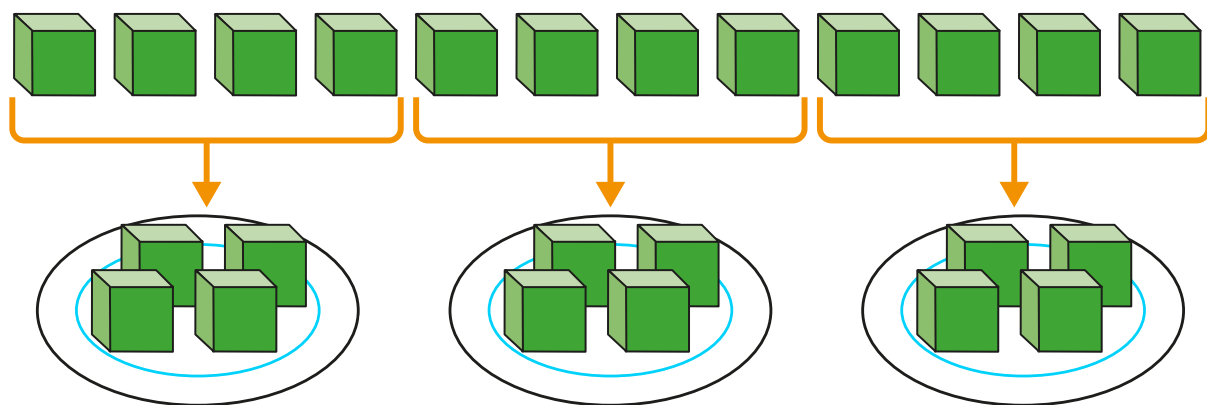
Is there more than one answer?



Divide by 3



1



Complete the sentences.

There are 12 cubes.

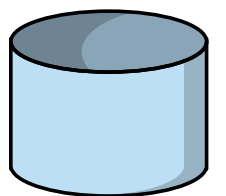
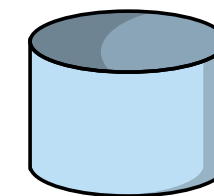
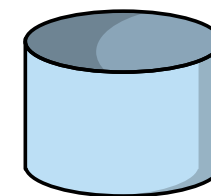
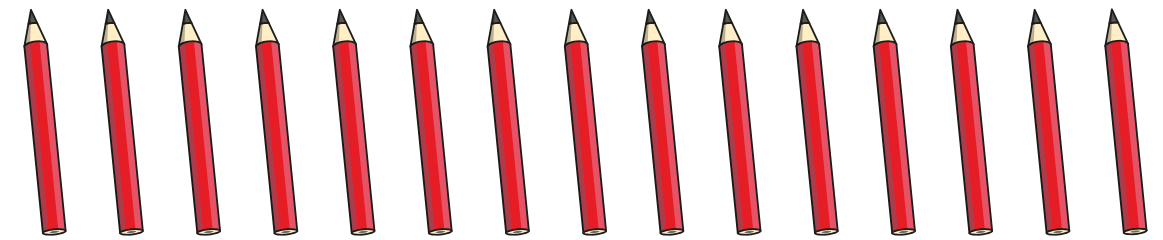
There are plates.

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.

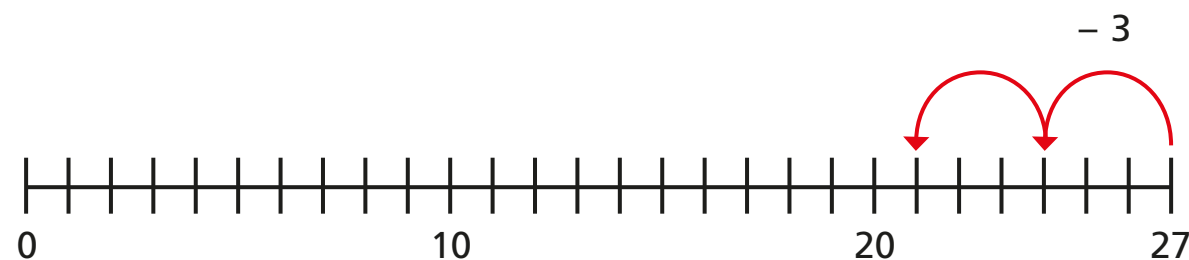
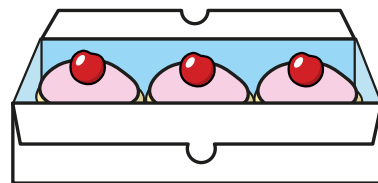
3 Divide 18 counters into groups of 3 counters.

Draw a picture to show what this would look like.

How many groups did you draw?

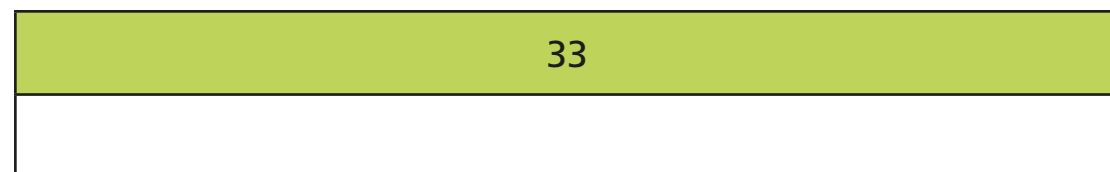


- 4 There are 27 cakes.
A box can hold 3 cakes.
How many boxes of 3 cakes can be filled?
Use the number line to help you.



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?

$$\boxed{} \div \boxed{} = \boxed{}$$

- b) Nijah has 36 apples.
In each box there are 3 apples.

How many boxes are there?

$$\boxed{} \div \boxed{} = \boxed{}$$

- c) 24 children stand in groups of 3

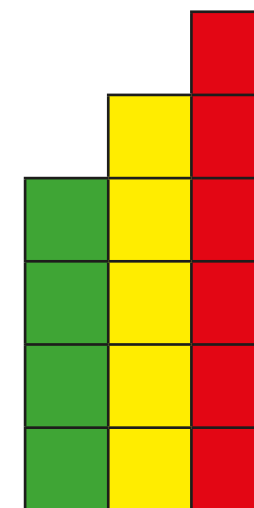
How many groups are there?

$$\boxed{} \div \boxed{} = \boxed{}$$

- 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.

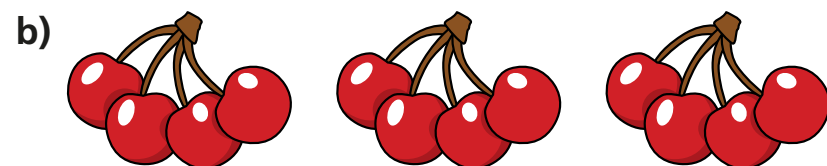


The 3 times-table

1 Complete the multiplications.

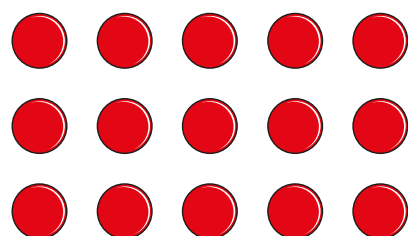


$$\square \times \square = \square$$



$$\square \times \square = \square$$

2 Dani makes an array using counters.



Write two multiplication and two division facts represented by the array.

$$\square \times \square = \square$$

$$\square \times \square = \square$$

$$\square \div \square = \square$$

$$\square \div \square = \square$$

3 Complete the number sentences.

a) $6 \times 3 = \square$

d) $\square \div 3 = 5$

b) $3 \times \square = 27$

e) $12 \times 3 = \square$

c) $\square \div 11 = 3$

f) $\square \times 3 = 0$

4 Complete the number sentences.

a) $2 \times 3 = \square$

b) $6 = 3 \times \square$

$4 \times 3 = \square$

$12 = 3 \times \square$

$8 \times 3 = \square$

$18 = 3 \times \square$

What patterns do you notice?

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

a) $33 \div 11 \bigcirc 3$

d) $6 \times 3 \bigcirc 6 \div 3$

b) $27 \bigcirc 30 \div 3$

e) $3 \times 6 \bigcirc 18 \div 3$

c) $9 \div 3 \bigcirc 3 \times 6$

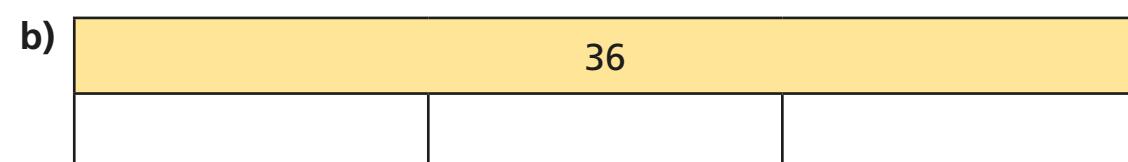
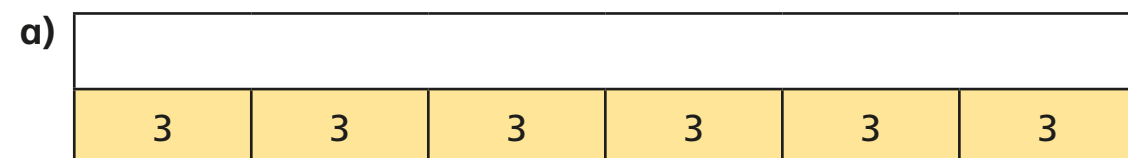
f) $0 \times 3 \bigcirc 3 \div 3$

- 6 Colour all the numbers in the 3 times-table.

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

What two patterns do you notice?

- 7 Work out the missing values in each bar model.



- 8 Mo has 7 packets of 3 stickers.

Eva has 3 packets of 9 stickers.

Who has the greatest number of stickers? _____



- 9 a) Complete the multiplications.

Are the answers odd or even? Tick your answer.

	odd	even
$1 \times 3 = 3$	☐	☐
$2 \times 3 = \square$	☐	☐
$3 \times 3 = \square$	☐	☐
$\square \times 3 = 12$	☐	☐

- b) What would the next multiplication be?

$$\square \times 3 = \square$$

- c) What do you notice about the products?

- d) Will the product of 11×3 be odd or even? _____

- 10 Use the fact that $12 \times 3 = 36$ to work out the calculations.

$$13 \times 3 = \square$$

$$3 \times 15 = \square$$

$$14 \times 3 = \square$$

$$24 \times 3 = \square$$

How did you work this out?

Did you find the answers in the same way as your partner?



Multiply by 4

1 Complete the sentences.

a)

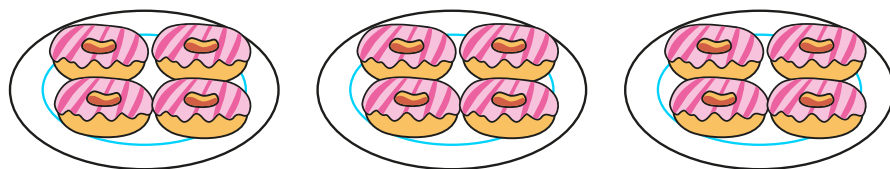


There are bags of pears.

There are pears in each bag.

There are pears in total.

b)

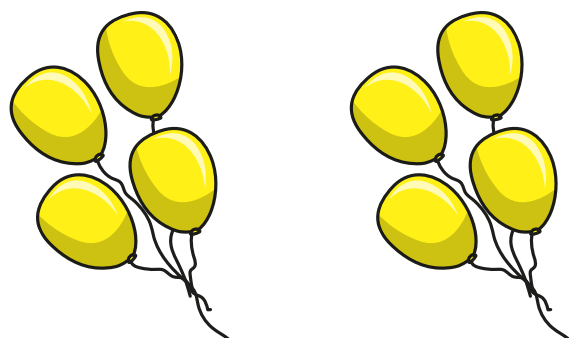


There are plates.

There are doughnuts on each plate.

There are doughnuts in total.

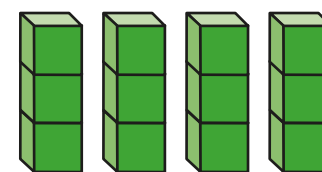
2 Complete the multiplication.



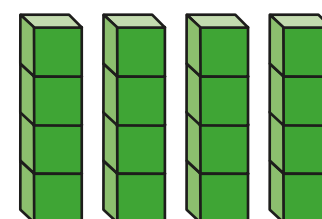
$$\square \times \square = \square$$

3 Match the representations to the number sentences.

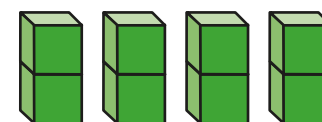
Complete the number sentences.



$$4 \times 2 = \square$$

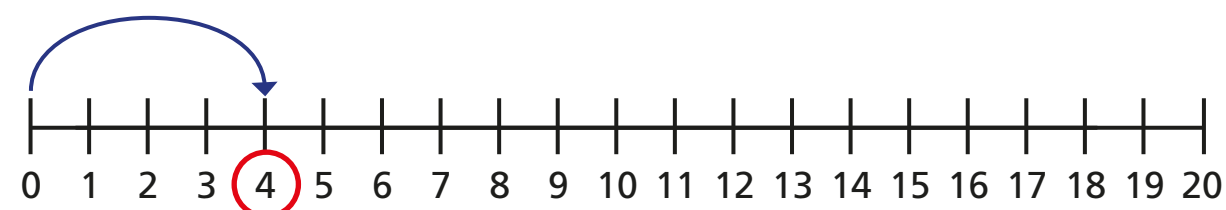


$$4 \times 3 = \square$$

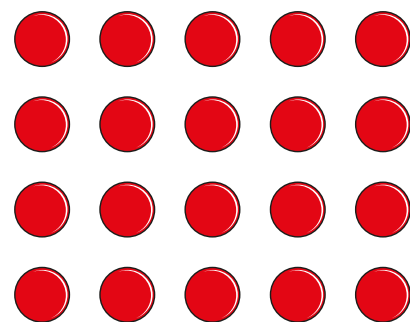


$$4 \times 4 = \square$$

4 Starting from zero, circle the numbers in the 4 times-table.
The first one has been done for you.



- 5 Esther makes this array.



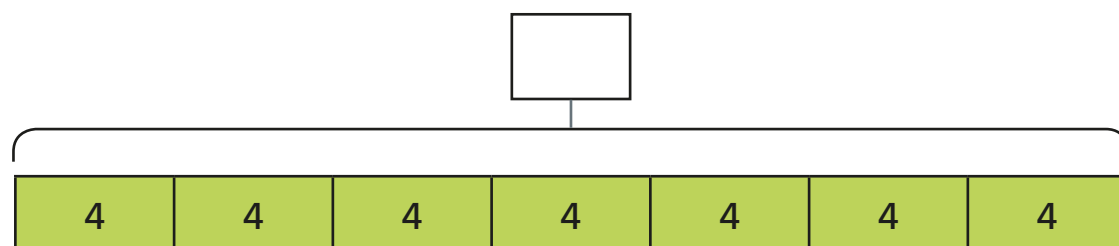
What multiplication facts does the array represent?

Complete the multiplications.

$$\square \times \square = \square$$

$$\square \times \square = \square$$

- 6 Fill in the missing number.



What multiplication is represented?

Complete the multiplication.

$$\square \times \square = \square$$



- 7 Teddy has 4 bags of 10 sweets.



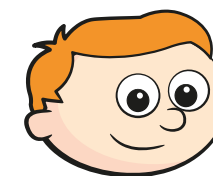
How many sweets does Teddy have?

Teddy has sweets.

- 8 A bottle contains 4 litres of juice.
Mrs Wilson needs 30 litres of juice for a party.
She has 12 bottles.
Does she have enough juice?



- 9



To multiply by 4,
you take the number
you are multiplying and
double it twice.

Do you agree with Ron? _____

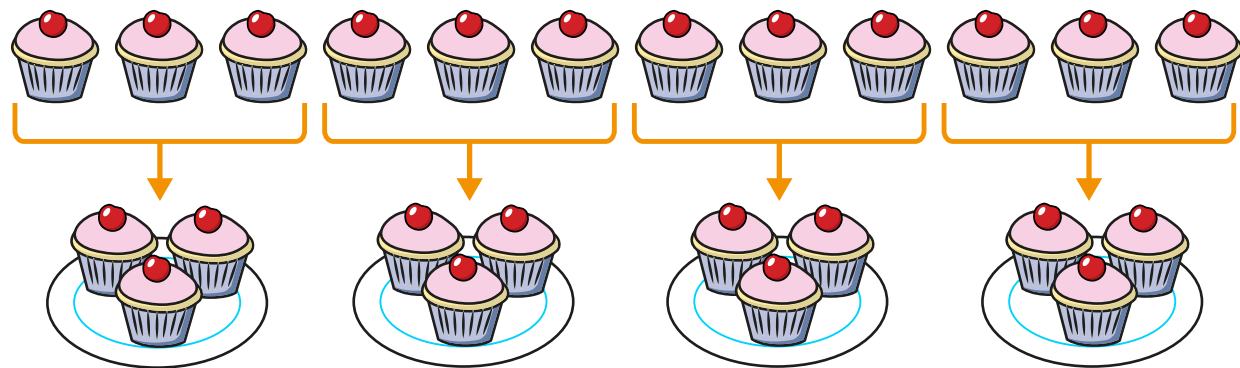
Explain your answer.



Divide by 4



1 Here are 12 cakes.



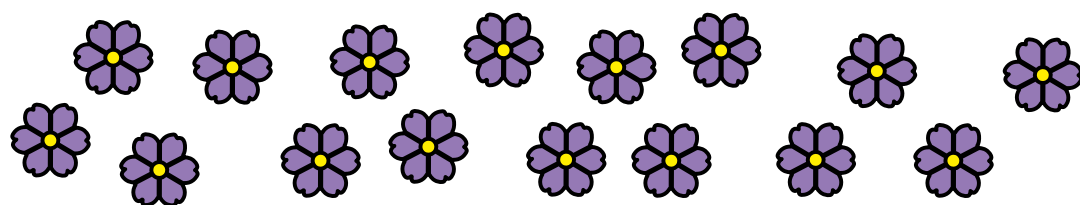
Complete the sentences.

There are plates.

Each plate has cakes.

12 shared into equal groups is

2 Circle groups of 4 flowers.

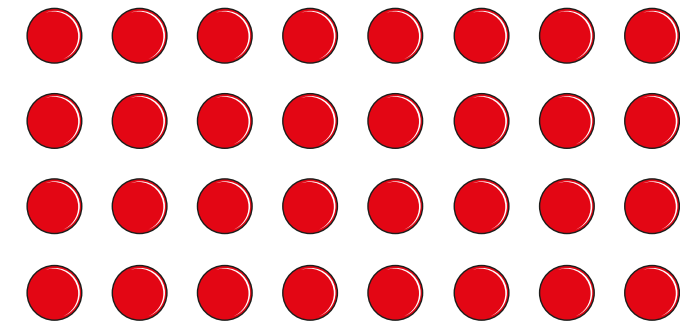


a) How many groups of 4 flowers did you make?

b) Complete the sentence.

There are groups of 4 in 16

3 Eva makes an array with 32 counters.



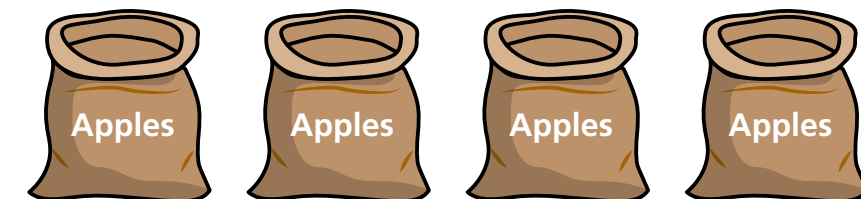
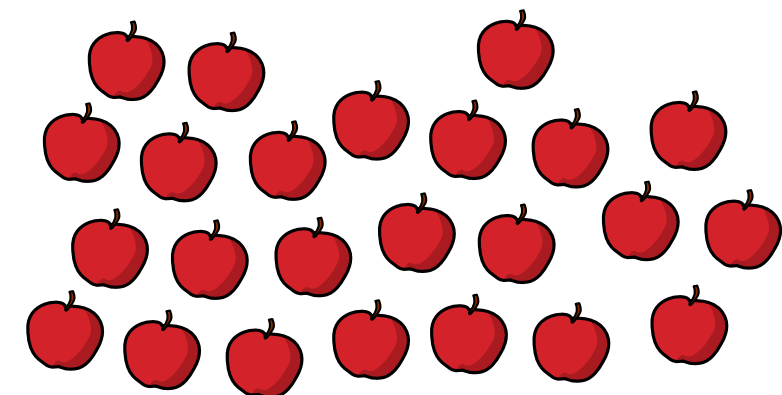
a) How many groups of 4 are in the array?

b) Use this to complete the division sentence.

$$32 \div 4 = \boxed{}$$

4 A farmer has 24 apples.

He wants to pack the apples equally into 4 bags.



How many apples will be in each bag?

$$\boxed{} \div \boxed{} = \boxed{}$$

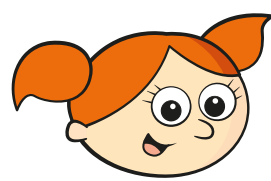
There will be apples in each bag.

- 5 There are 20 muffins.
4 muffins fit in 1 box.
Use the number line to work out how many boxes can be filled.



boxes of muffins can be filled.

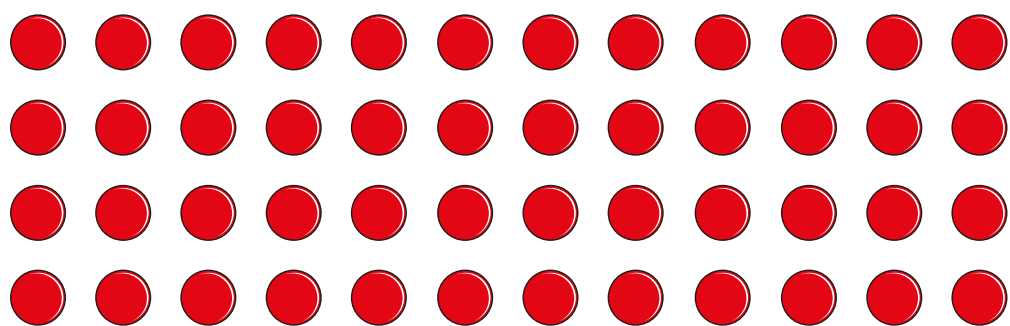
- 6 Alex is trying to divide 48 by 4



To multiply by 4, you can double the number and double again.

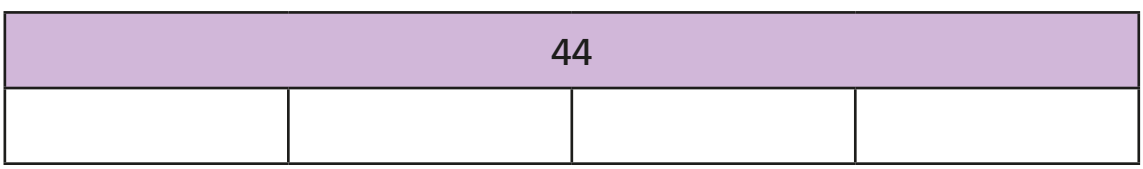
To divide a number by 4, I think you can halve the number and halve it again.

Divide the array to show that Alex's method works.



Does Alex's method always work?

- 7 Complete the bar model.



Complete the division statement to match the bar model.

44 ÷ =

- 8 Mo is working out whether numbers divide equally by both 2 and 4

Complete the table and continue the pattern.
The first one has been done for you.

Number	Divided equally by 2 is . . .	Divided equally by 4 is . . .
2	1	does not divide equally
4		
6		
8		
10		
12		

What do you notice?
