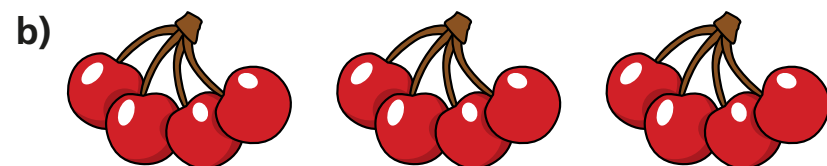


The 3 times-table

1 Complete the multiplications.

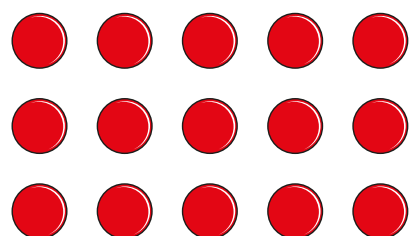


$$\boxed{8} \times \boxed{3} = \boxed{24}$$



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

2 Dani makes an array using counters.



Write two multiplication and two division 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 Complete the number sentences.

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

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

b) $3 \times \boxed{9} = 27$

e) $12 \times 3 = \boxed{36}$

c) $\boxed{33} \div 11 = 3$

f) $\boxed{0} \times 3 = 0$

4 Complete the number sentences.

a) $2 \times 3 = \boxed{6}$

b) $6 = 3 \times \boxed{2}$

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

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

$8 \times 3 = \boxed{24}$

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

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

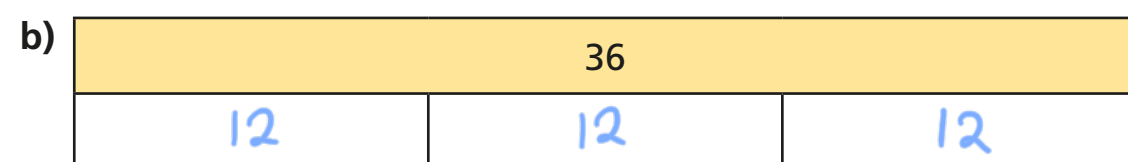
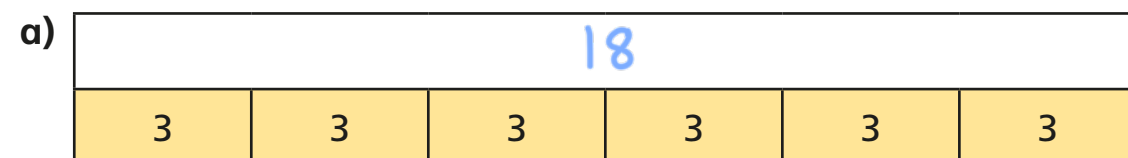
f) $0 \times 3 \bigcirc 3 \div 3$

- 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? Eva



- 9 a) Complete the multiplications.

Are the answers odd or even? Tick your answer.

	odd	even
$1 \times 3 = 3$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
$2 \times 3 = 6$	<input type="checkbox"/>	<input checked="" type="checkbox"/>
$3 \times 3 = 9$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
$4 \times 3 = 12$	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b) What would the next multiplication be?

$$5 \times 3 = 15$$

- c) What do you notice about the products?

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

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

$$13 \times 3 = 39$$

$$3 \times 15 = 45$$

$$14 \times 3 = 42$$

$$24 \times 3 = 72$$

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)

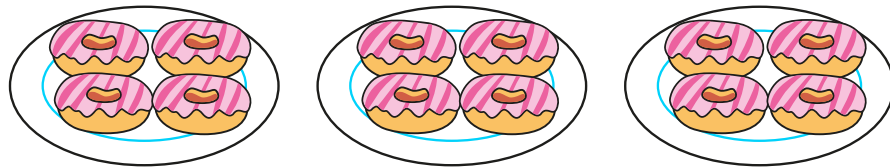


There are bags of pears.

There are pears in each bag.

There are pears in total.

b)

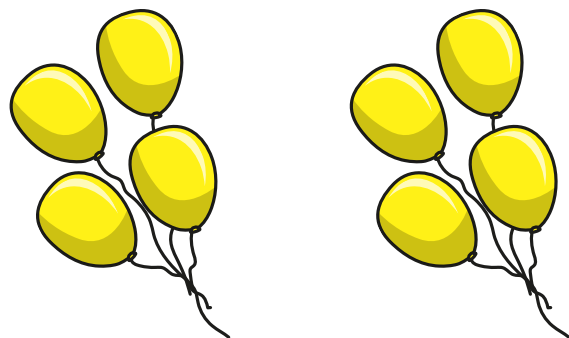


There are plates.

There are doughnuts on each plate.

There are doughnuts in total.

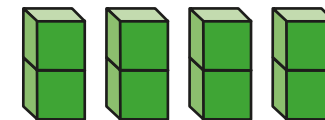
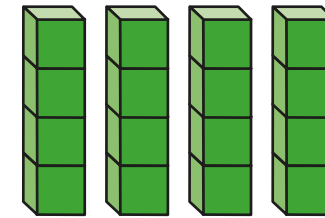
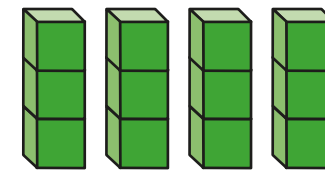
2 Complete the multiplication.



$$\boxed{2} \times \boxed{4} = \boxed{8}$$

3 Match the representations to the number sentences.

Complete the number sentences.

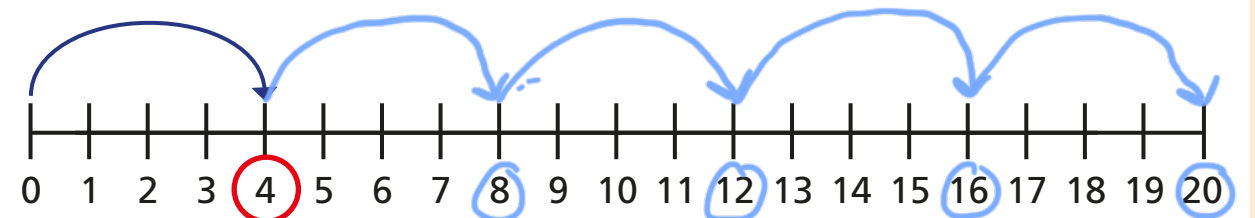


$$4 \times 2 = \boxed{8}$$

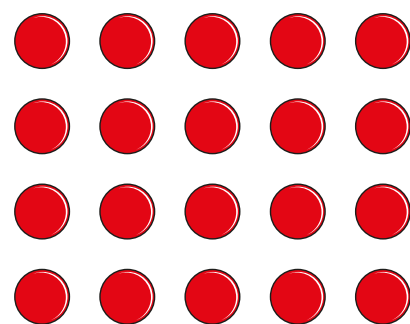
$$4 \times 3 = \boxed{12}$$

$$4 \times 4 = \boxed{16}$$

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.



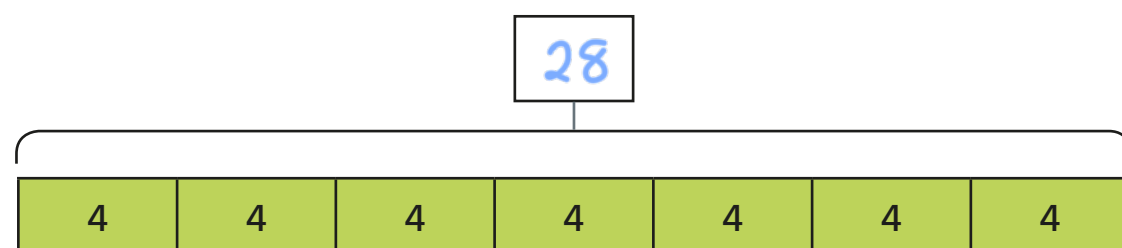
What multiplication facts does the array represent?

Complete the multiplications.

$$\boxed{4} \times \boxed{5} = \boxed{20}$$

$$\boxed{5} \times \boxed{4} = \boxed{20}$$

- 6 Fill in the missing number.



What multiplication is represented?

Complete the multiplication.

$$\boxed{7} \times \boxed{4} = \boxed{28}$$



- 7 Teddy has 4 bags of 10 sweets.



How many sweets does Teddy have?

Teddy has $\boxed{40}$ sweets.

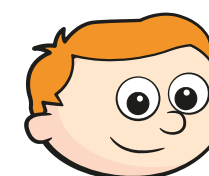
- 8 A bottle contains 4 litres of juice.
Mrs Wilson needs 30 litres of juice for a party.
She has 12 bottles.
Does she have enough juice?



$$12 \times 4 = 48$$

Yes

- 9



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

Do you agree with Ron? Yes

Explain your answer.

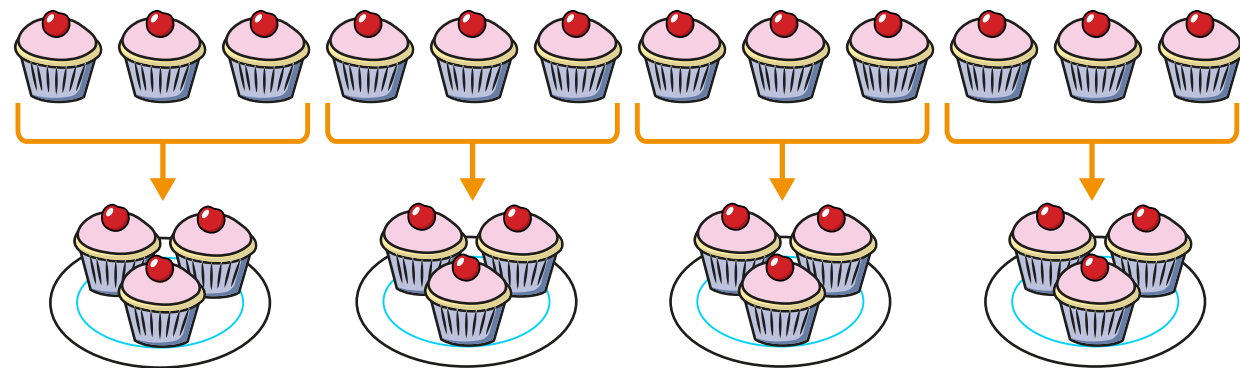
$$4 = 2 \times 2$$



Divide by 4



1 Here are 12 cakes.



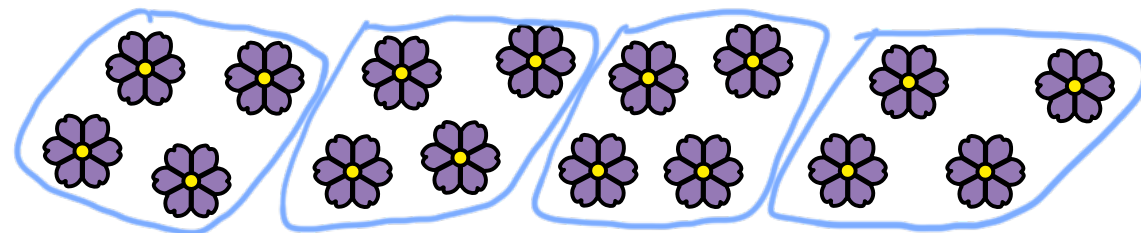
Complete the sentences.

There are plates.

Each plate has cakes.

12 shared into equal groups is

2 Circle groups of 4 flowers.

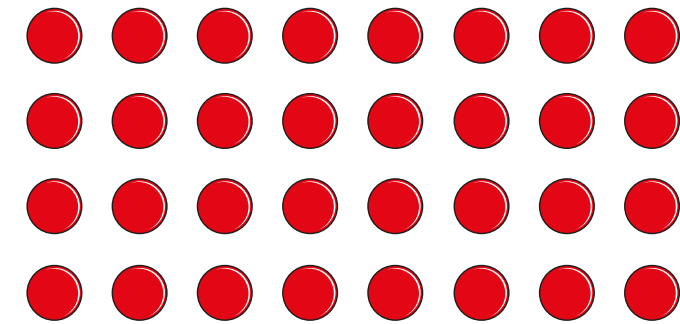


a) How many groups of 4 flowers did you make?

b) Complete the sentence.

There are groups of 4 in 16

3 Eva makes an array with 32 counters.



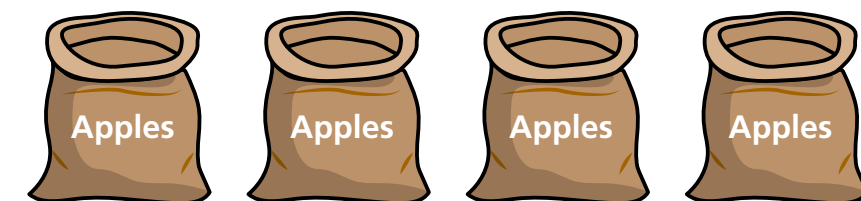
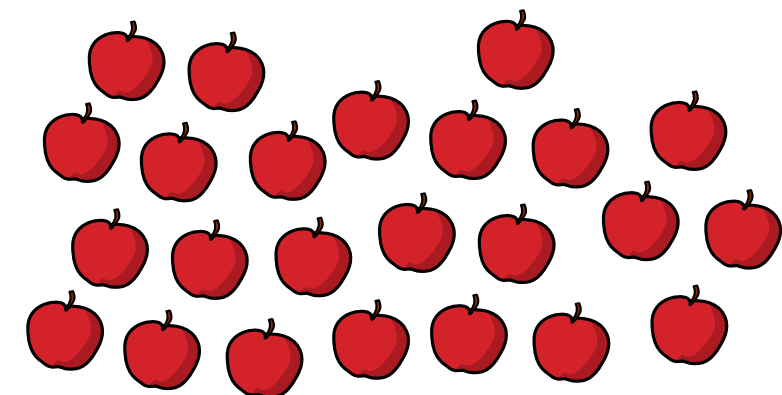
a) How many groups of 4 are in the array?

b) Use this to complete the division sentence.

$$32 \div 4 = \text{$$

4 A farmer has 24 apples.

He wants to pack the apples equally into 4 bags.

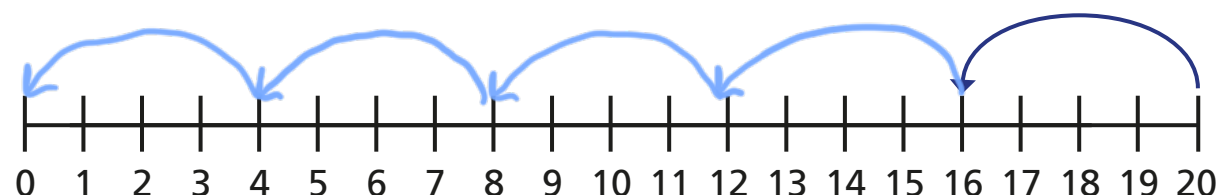


How many apples will be in each bag?

$$\text{$$

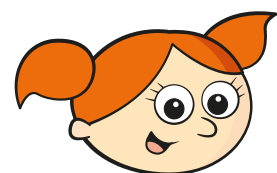
There will be apples in each bag.

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



5 boxes of muffins can be filled.

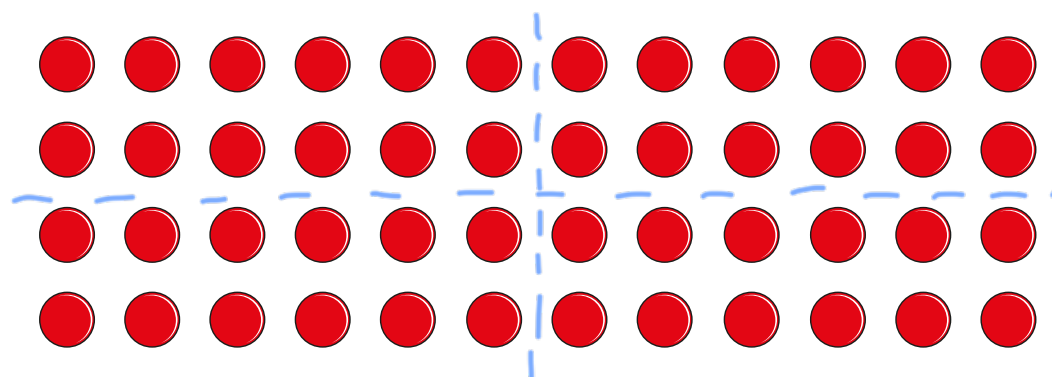
- 6 Alex is trying to divide 48 by 4



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

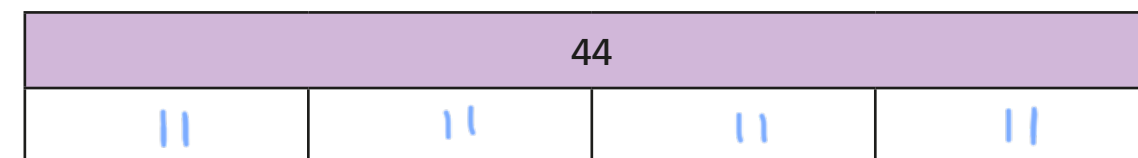
To divide a number by 4, I think you can halve the number and halve it again.

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.

$$44 \div \boxed{4} = \boxed{11}$$

- 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	2	1
6	3	does not divide equally
8	4	2
10	5	does not divide equally
12	6	3
14	7	does not divide equally
16	8	4

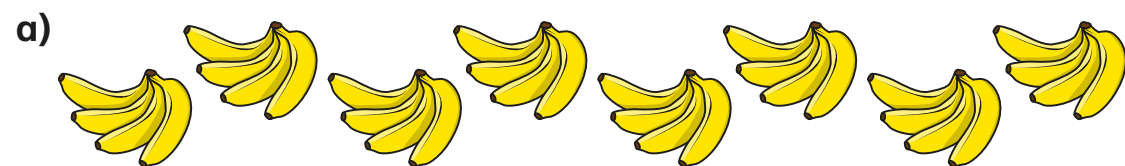
What do you notice?

Various answers.

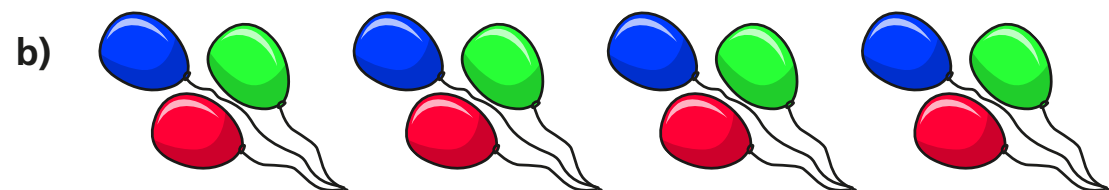


The 4 times-table

1 Complete the multiplication.



$$\boxed{8} \times \boxed{4} = \boxed{32}$$



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

2 Complete the number sentences.

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

g) $24 \div 4 = \boxed{6}$

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

h) $8 \div 4 = \boxed{2}$

c) $\boxed{28} = 7 \times 4$

i) $0 \div 4 = \boxed{0}$

d) $4 \times \boxed{12} = 48$

j) $\boxed{44} \div 11 = 4$

e) $0 \times 4 = \boxed{0}$

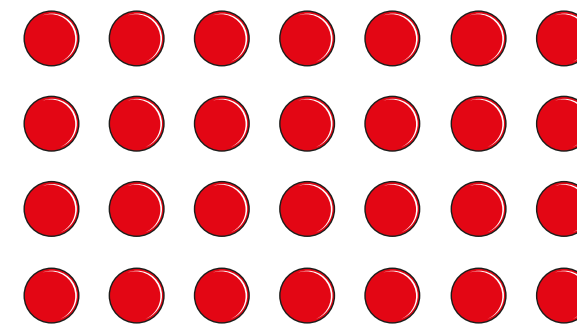
k) $\boxed{20} \div 4 = 5$

f) $4 \times 9 = \boxed{36}$

l) $1 \times 4 = \boxed{4}$

3 What multiplication and division statements does the array represent?

Complete the statements.



$$\boxed{4} \times \boxed{7} = \boxed{28}$$

$$\boxed{7} \times \boxed{4} = \boxed{28}$$

$$\boxed{28} \div \boxed{7} = \boxed{4}$$

$$\boxed{28} \div \boxed{4} = \boxed{7}$$

4 Complete the number sentences.

a) $2 \times 4 = \boxed{8}$

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

$4 \times 4 = \boxed{16}$

$3 \times 8 = \boxed{24}$

$8 \times 4 = \boxed{32}$

$3 \times 12 = \boxed{36}$

b) $8 = 4 \times \boxed{2}$

$16 = 4 \times \boxed{4}$

$32 = 4 \times \boxed{8}$

What patterns do you notice?



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

- a) $48 \div 12$ $=$ 4 d) $4 \div 4$ $<$ 4×4
 b) 36 $>$ $40 \div 4$ e) 1×4 $=$ 4×1
 c) $16 \div 4$ $<$ 4×4 f) 4×2 $=$ $32 \div 4$

6 A paper clip is 4 cm long.



How long are 6 of these paper clips?

24cm

7 Dexter buys 10 mugs and 4 key rings.
How much money does he spend in total?



£52

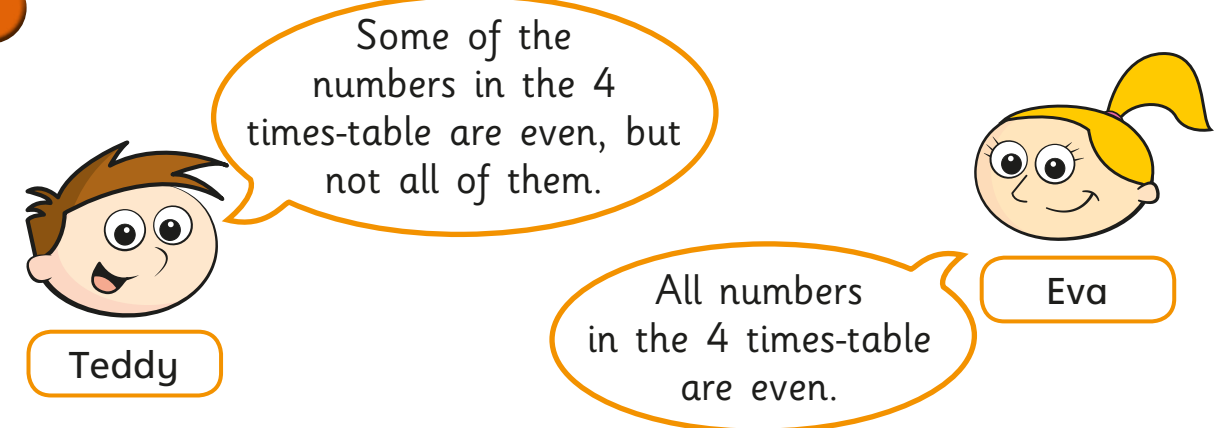
8 The pictogram shows the animals a group of children have as pets.

Complete the pictogram.

Animal	Pictogram	Number of animals
cat		16
dog		28
bird		20
mouse		4

= 4 animals

9

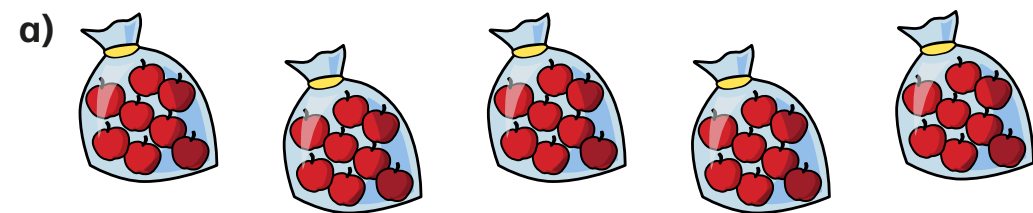


Who is correct? Eva

How do you know? Talk about it with a partner.

Multiply by 8

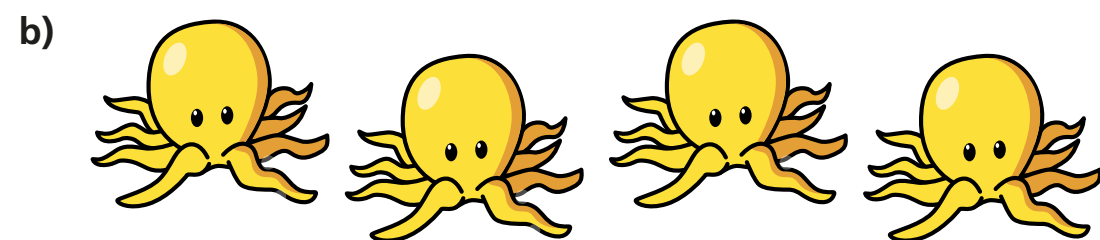
1 Complete the sentences.



There are bags of apples.

There are apples in each bag.

There are apples in total.



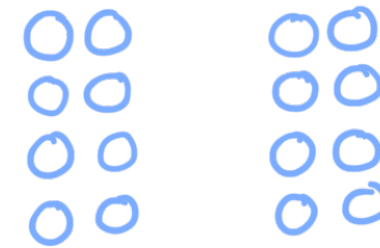
There are octopuses.

There are arms on each octopus.

There are arms in total.

2 Use counters to represent 2×8

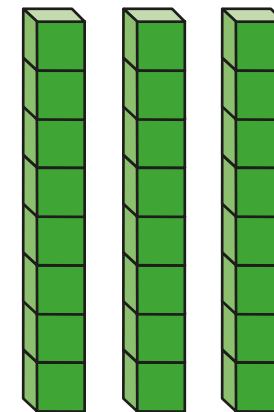
Draw your representation.



3 Work out how many cubes there are in total.

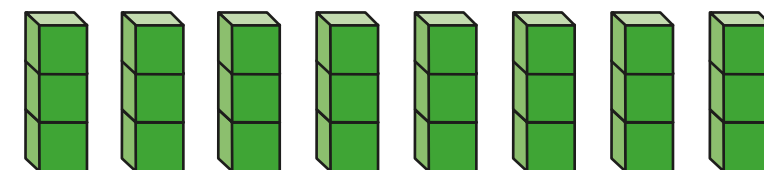
Complete the multiplication sentences.

a)



$$\boxed{3} \times \boxed{8} = \boxed{24}$$

b)

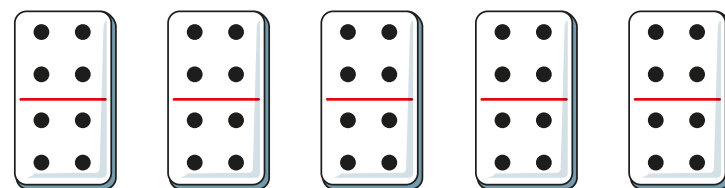


$$\boxed{8} \times \boxed{3} = \boxed{24}$$

What is the same about your answers? What is different?



- 4 How many dots are there in total?



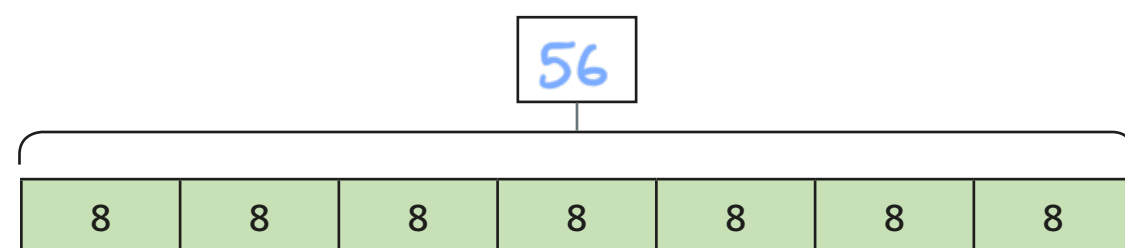
$$\boxed{5} \times \boxed{8} = \boxed{40}$$

How many different ways can you work this out?

e.g. $8 + 8 + 8 + 8 + 8 = 40$

$10 \times 4 = 40$

5



- a) What multiplication is represented by the bar model?

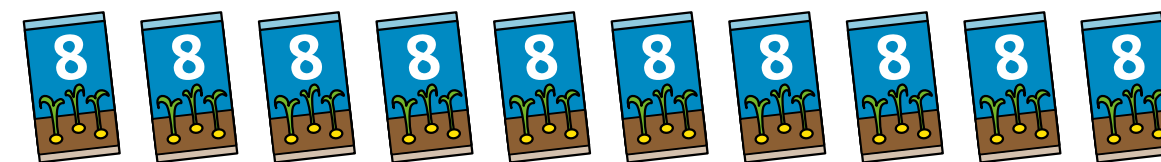
$$\boxed{7} \times \boxed{8}$$

- b) Label the bar model with the whole.

- c) Draw a bar model to represent 3×8



- 6 Whitney has 10 packets of seeds.



- a) How many seeds does Whitney have in total?

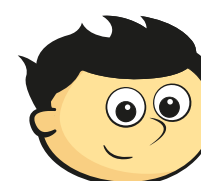
$$\boxed{80}$$

- b) Ron has 4 fewer packets than Whitney.

How many seeds does he have?

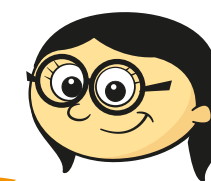
$$\boxed{48}$$

- 7 Jack and Annie are practising their 8 times-table.



Jack

To multiply any number by 8, you can multiply it by 4 and then double it.



Annie

To multiply any number by 8, you can double the number 3 times.

- a) Who do you agree with? Both

Talk about it with a partner.

- b) Use both methods to work out these multiplications.

$$8 \times 4 = \boxed{32}$$

$$8 \times 9 = \boxed{72}$$

$$11 \times 8 = \boxed{88}$$