



White Rose Maths

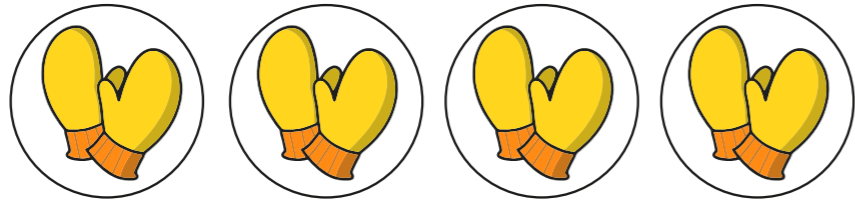
Answer booklet

W/C 1st February

Recognise equal groups

1 Complete the sentences.

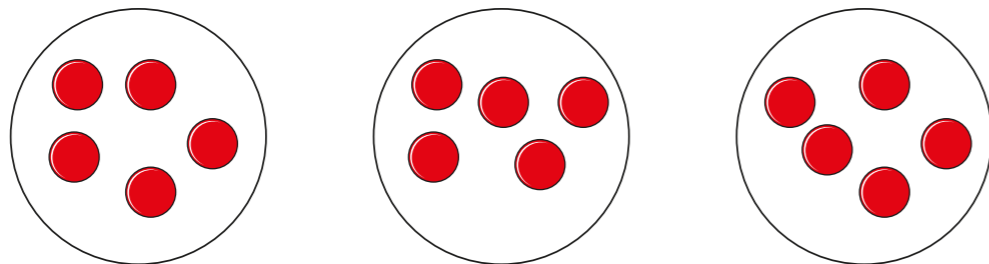
a)



There are pairs with mittens
in each pair.

There are mittens altogether.

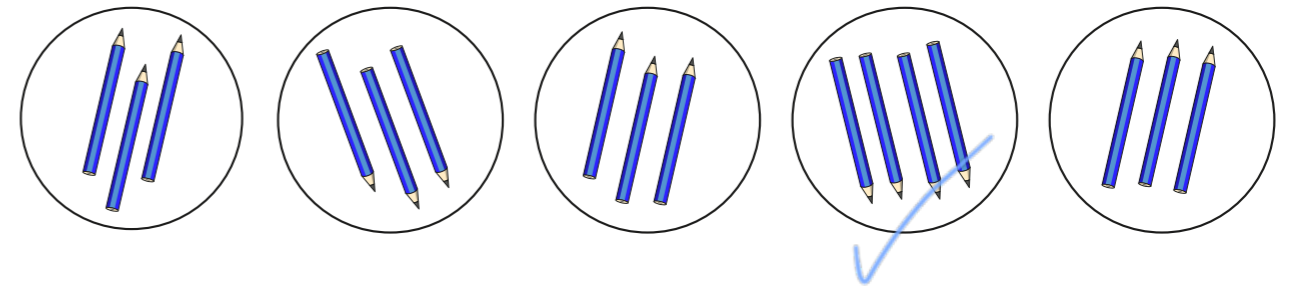
b)



There are groups with
counters in each group.

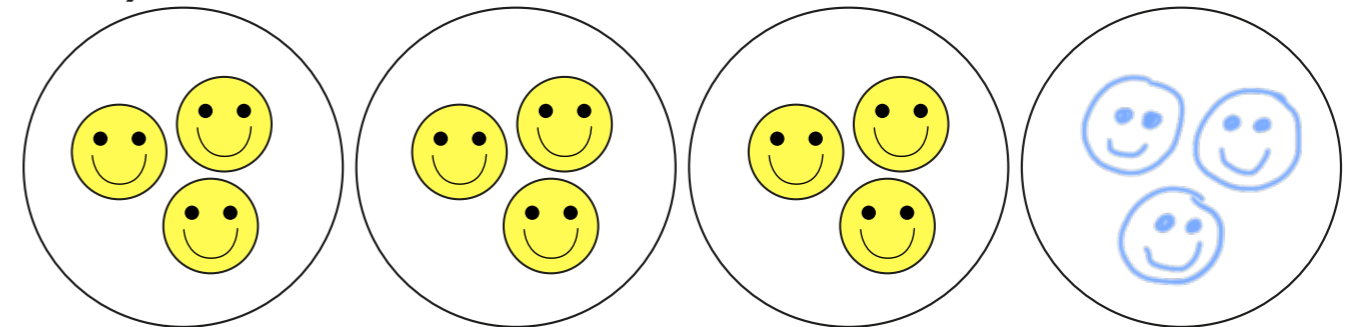
There are counters altogether.

2 Tick the unequal group.



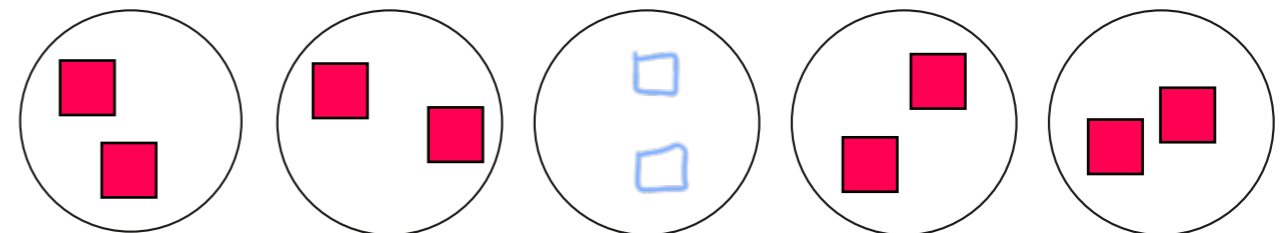
3 Complete the equal groups and sentences.

a)



There are groups with in
each group.

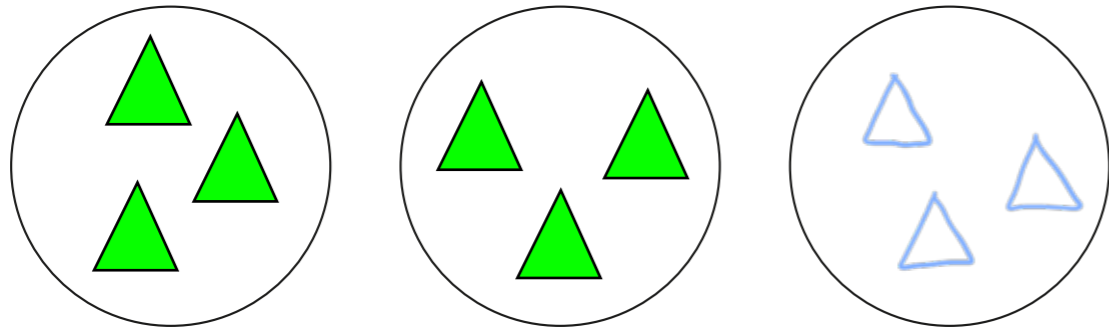
b)



There are groups with in
each group.

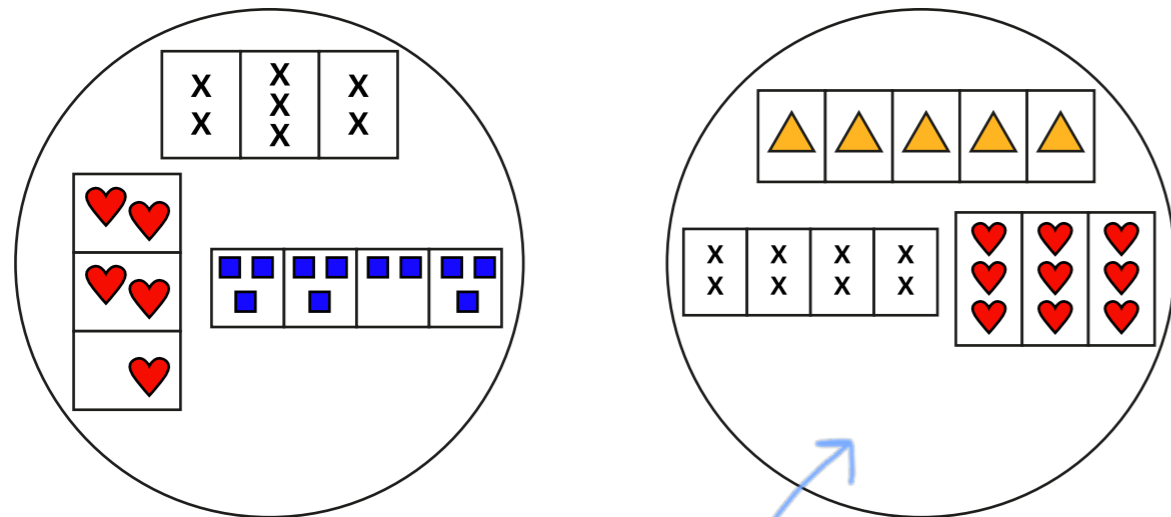


c)

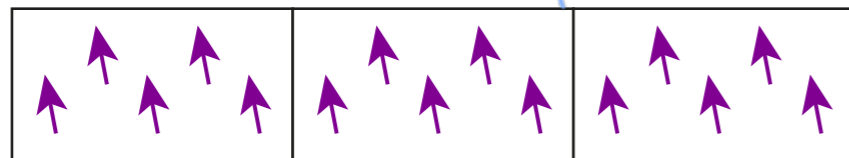


There are groups with in each group.

4 a) How has Annie sorted these groups?

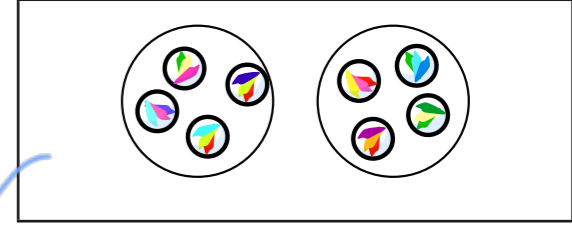


b) Draw a line to show where this group belongs.

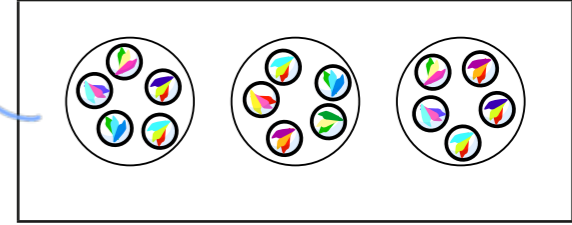


5 Match the sentences to the pictures.

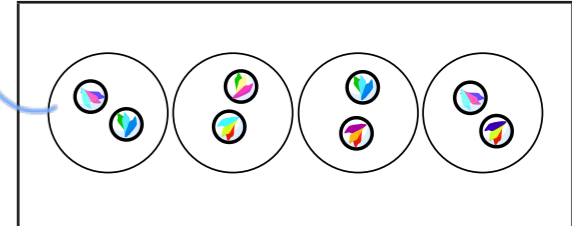
There are 3 equal groups with 5 in each group.



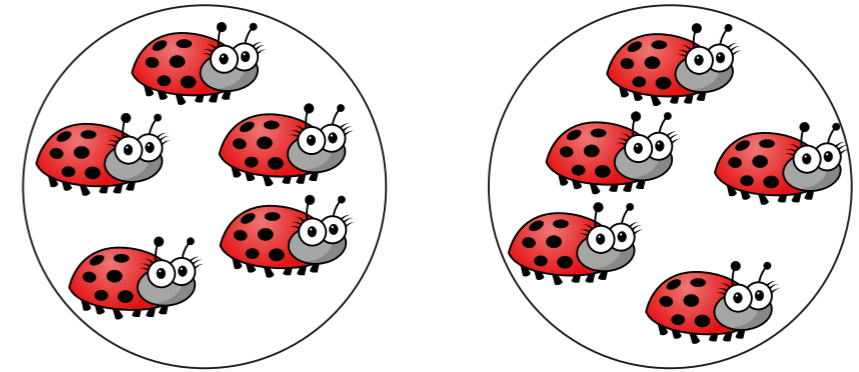
There are 4 equal groups with 2 in each group.



There are 2 equal groups with 4 in each group.



6

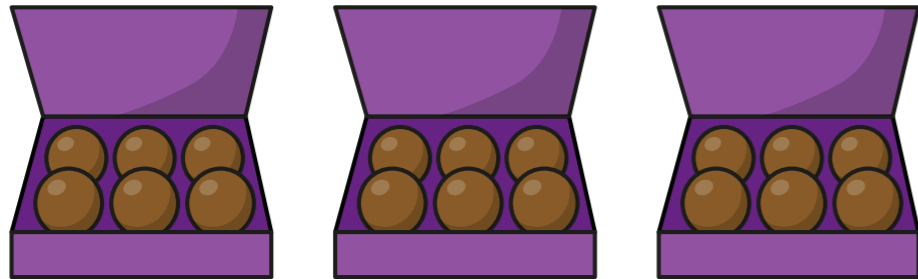


Is Whitney correct? No
Talk to a partner.

Add equal groups

1 Complete the sentences.

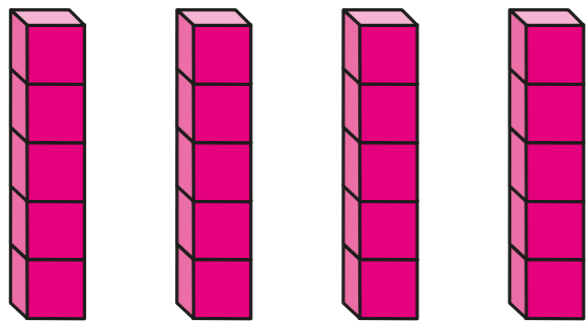
a)



There are equal groups with
in each group.

$$\boxed{6} + \boxed{6} + \boxed{6} = 18$$

b)

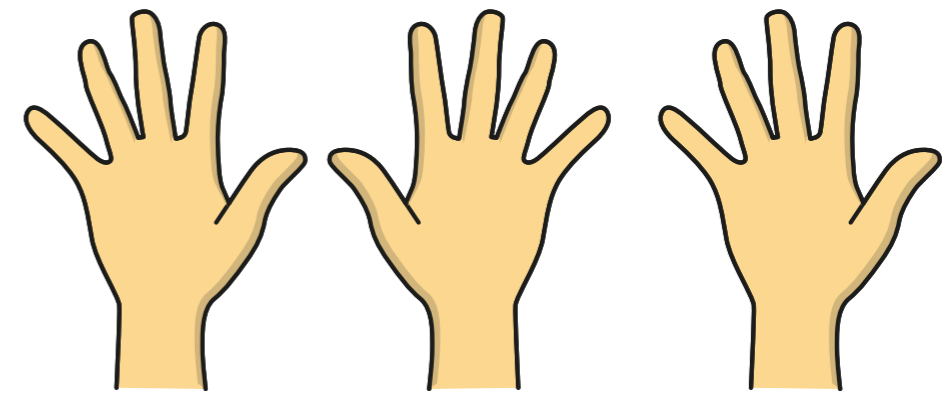


There are equal groups with
in each group.

$$\boxed{5} + \boxed{5} + \boxed{5} + \boxed{5} = 20$$

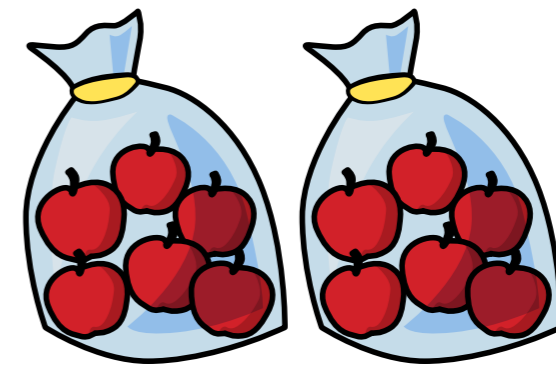
2 Write a number sentence to match the picture.

a)



$$5 + 5 + 5 = 15$$

b)



$$6 + 6 = 12$$

3 Rosie has 20p.

How many 10p coins could she have?

How many 5p coins could she have?

How many 2p coins could she have?





4 Draw a picture to represent the number sentence.

a) $8 + 8 = 16$

Various answers e.g.

b) $2 + 2 + 2 = 6$

Various answers e.g.

5 Dexter has five of the same coins.
How much money does Dexter have if these are the coins?

a) Dexter has five 1p coins.

5p

b) Dexter has five 2p coins.

10p

c) Dexter has five 5p coins.

25p

d) Dexter has five 10p coins

50p

6 Complete the sentences.

a) $3 + 3 + 3 + 3 = 12$

There are equal groups with
in each group.

b) $2 + 2 + 2 + 2 + 2 + 2 + 2 = 14$

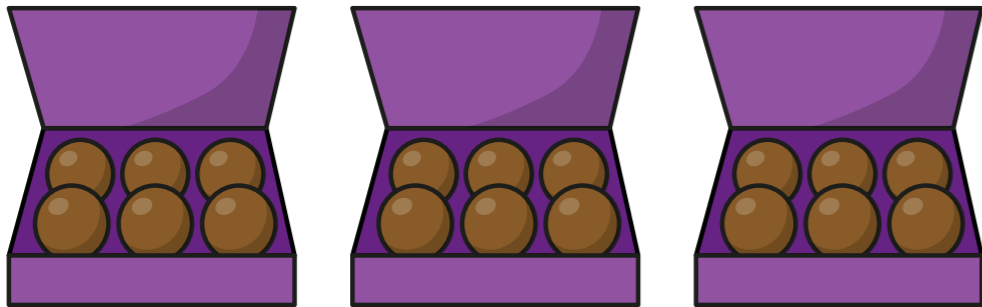
There are equal groups with
in each group.



Multiplication sentences using the \times symbol

1 Complete the sentences.

a)



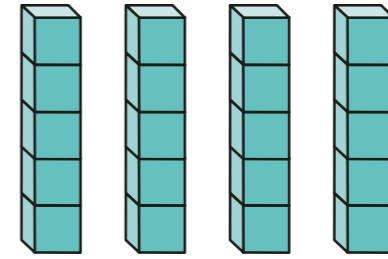
There are equal groups with

in each group.

$$\boxed{6} + \boxed{6} + \boxed{6} = 18$$

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

b)



There are equal groups with
in each group.

$$\boxed{5} + \boxed{5} + \boxed{5} + \boxed{5} = 20$$

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

c)



There are equal groups with
in each group.

$$\boxed{4} + \boxed{4} = 8$$

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

2 Complete the table.

The first one has been done for you.

Addition	Multiplication
$2 + 2 + 2 + 2$	4×2
$5 + 5 + 5$	3×5
$3 + 3 + 3 + 3 + 3$	5×3
$16 + 10$	2×10

3 Complete the pattern.

$$5 \times 2 = 5 + 5 = \boxed{10}$$

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

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

$$5 \times 5 = \underline{5 + 5 + 5 + 5 + 5} = \boxed{25}$$

What comes next?

4 The total is 16

What could the addition and multiplication be?

various answers e.g. $2 \times 8 = 16$
 $8 + 8 = 16$

5 Use counters to help you complete the number sentences.

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

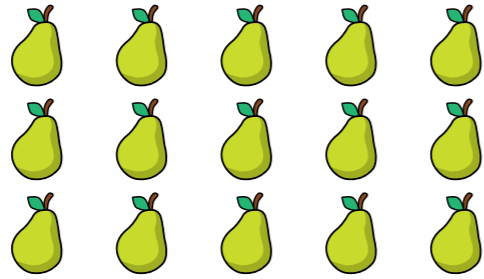
b) $\boxed{2} \times 4 = 8$

c) $2 \times \boxed{5} = 10$



Use arrays

1 How many pears are there?



$$\boxed{5} + \boxed{5} + \boxed{5} = \boxed{15}$$

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

There are $\boxed{15}$ pears.

2 How many stars are there?

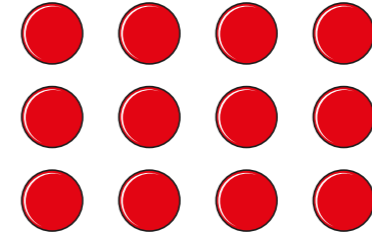


$$\boxed{6} + \boxed{6} = \boxed{12}$$

$$\boxed{2} \times \boxed{6} = \boxed{12}$$

There are $\boxed{12}$ stars.

3 Write two additions and two multiplications for the array.



$$\boxed{4} + \boxed{4} + \boxed{4} = \boxed{12}$$

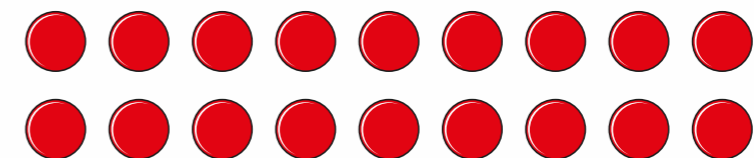
$$\boxed{3} \times \boxed{4} = \boxed{12}$$

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

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

What do you notice?

4 Write two multiplications for this array.



$$\boxed{2} \times \boxed{9} = \boxed{18}$$

$$\boxed{9} \times \boxed{2} = \boxed{18}$$



- 5 Draw an array to show 7×3
Complete the number sentence.

$7 \times 3 =$ 21

Is there more than one way to draw the array?



- 6 Draw three different arrays to show 12



- 7 Draw dots to show each multiplication in two ways.

The first one has been done for you.

Multiplication	Array 1	Array 2
3×8		
2×5		
4×9		
6×1		

- 8 Can you see the multiplications 5×4 and 4×5 in the array?

Talk about it with a partner.



Multiplication sentences from pictures

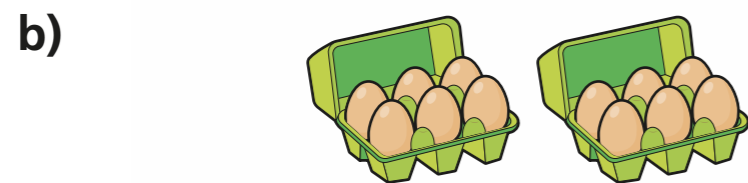
1 Complete the sentences to match the picture.



$$\boxed{4} \text{ lots of } 3 = \boxed{12}$$

$$\boxed{4} \text{ multiplied by } 3 = \boxed{12}$$

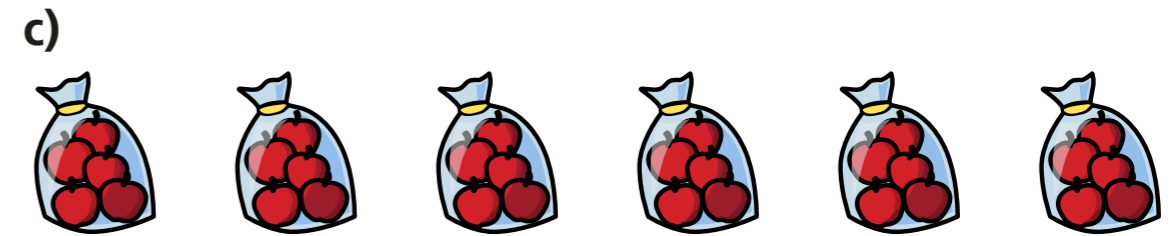
$$\boxed{4} \times 3 = \boxed{12}$$



$$\boxed{2} \text{ lots of } 6 = \boxed{12}$$

$$\boxed{2} \text{ multiplied by } 6 = \boxed{12}$$

$$\boxed{2} \times 6 = \boxed{12}$$



$$\boxed{6} \text{ lots of } \boxed{5} = \boxed{30}$$

$$\boxed{6} \text{ multiplied by } \boxed{5} = \boxed{30}$$

$$\boxed{6} \times \boxed{5} = \boxed{30}$$



$$\boxed{9} \text{ lots of } \boxed{1} = \boxed{9}$$

$$\boxed{9} \text{ multiplied by } \boxed{1} = \boxed{9}$$

$$\boxed{9} \times \boxed{1} = \boxed{9}$$

2 Draw a picture for each sentence.

a) 4 lots of 5



Various answers

b) 2 multiplied by 4

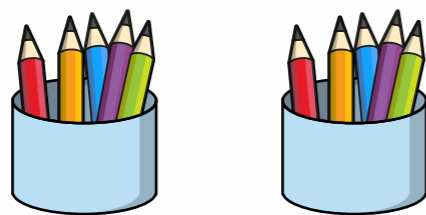


c) 3×5



3 Complete the sentences for each picture.

a)



$$\boxed{2} \text{ lots of } \boxed{5} = \boxed{10}$$

$$\boxed{2} \times \boxed{5} = \boxed{10}$$



$$\boxed{5} \text{ lots of } \boxed{2} = \boxed{10}$$

$$\boxed{5} \times \boxed{2} = \boxed{10}$$

What is the same about the number sentences?
What is different?

4 a) The answer is 12
What could the multiplication be?

Various answers.

Compare answers with a partner.

b) Now the answer is 15
What could the multiplication be?

Various answers.

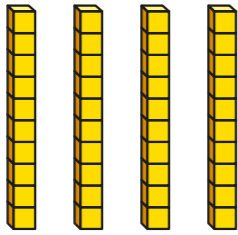
Can you write more or fewer multiplications for 15?



Make equal groups

1 Complete the sentences.

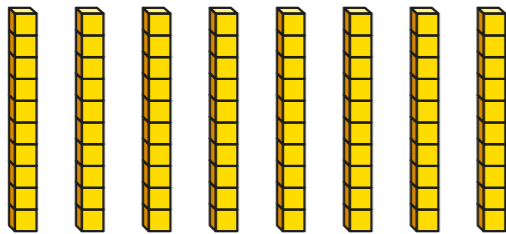
a)



There are equal groups of 10

There are tens.

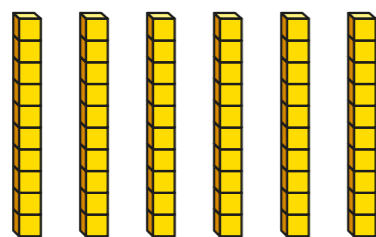
b)



There are equal groups of 10

There are tens.

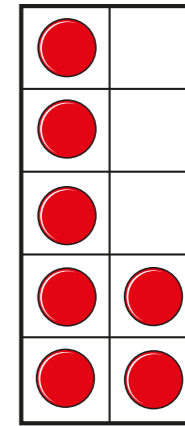
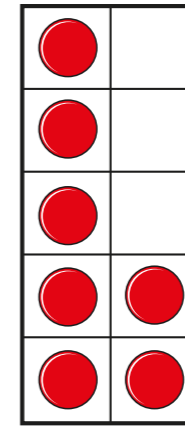
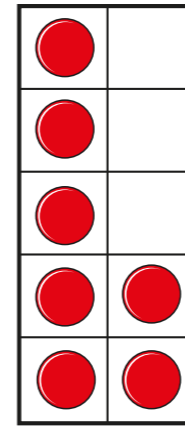
c)



There are tens.

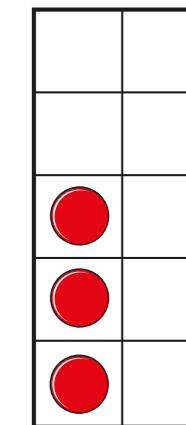
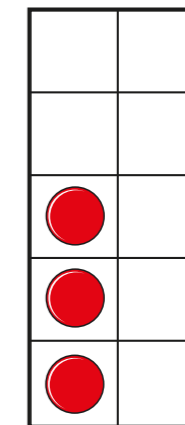
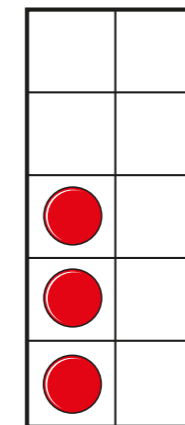
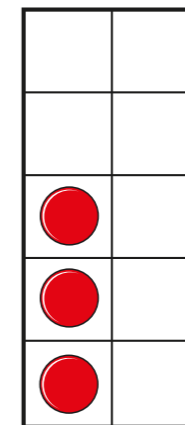
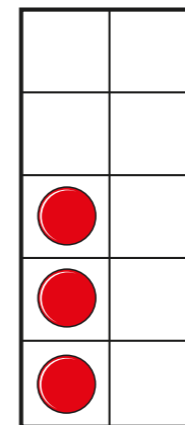
2 The ten frames show equal groups.

a)



There are equal groups with in each group.

b)



There are equal groups with in each group.

3 Match the equal groups.

4 Which pictures represent 4 equal groups with 5 in each group?

Tick your answers.

5 How can Eva make the groups equal?

6 Draw triangles to match each sentence.

a) There are 3 equal groups with 2 in each group.

b) There are 2 equal groups with 3 in each group.

What do you notice about your drawings?

