

Multiplication – equal groups

When we count in groups, the groups must be **equal** or **the same**.
How many carrots are there? Let's look at these equal groups.

x means multiply

3  3  3

3 bunches of 3  is 9  altogether.

$3 + 3 + 3 = 9$
 $3 \times 3 = 9$
 3 groups of 3 is 9

1 Are these groups equal? ☒ them if they are and ☒ if they are not.

a   

b   

c   

d   

2 How many are there?

a   plates of  is  altogether.



$5 + 5 =$ 
 $2 \times 5 =$ 

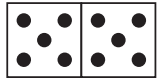
b   baskets of  is  altogether.

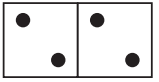


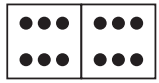
$2 + 2 + 2 = 6$
 $\text{box} \times \text{box} = \text{box}$

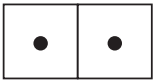
Multiplication – equal groups

1 Fill in the missing numbers to finish these facts.

a 
 box groups of box = 
 $5 + 5 =$ 
 $2 \times 5 =$ 

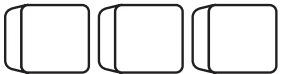
b 
 box groups of box = 
 $\text{box} + \text{box} =$ 
 $\text{box} \times \text{box} =$ 

c 
 box groups of box = 
 $\text{box} + \text{box} =$ 
 $\text{box} \times \text{box} =$ 

d 
 box groups of box = 
 $\text{box} + \text{box} =$ 
 $\text{box} \times \text{box} =$ 

2 Draw dots on the dice to match. Finish the number facts.

a 
 4 groups of 3 = 
 $\text{box} + \text{box} + \text{box} + \text{box} =$ 
 $\text{box} \times \text{box} =$ 

b 
 3 groups of 2 = 
 $\text{box} + \text{box} + \text{box} =$ 
 $\text{box} \times \text{box} =$ 

Multiplication – equal groups



1 Look at the picture. Help Tony work out the amounts of fruit and vegetables he has in stock.

a  $\square + \square = \square$
 $\square \times \square = \square$
 $\square$ groups of $\square$ is $\square$

c  $\square + \square + \square = \square$
 $\square \times \square = \square$
 $\square$ groups of $\square$ is $\square$

e  $\square + \square + \square + \square = \square$
 $\square \times \square = \square$
 $\square$ groups of $\square$ is $\square$

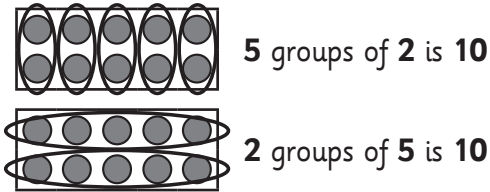
b  $\square$ rows of $\square$ is $\square$

d  $\square$ rows of $\square$ is $\square$

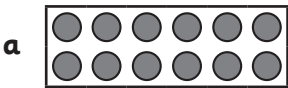
f  $\square$ rows of $\square$ is $\square$

Multiplication – dot diagrams

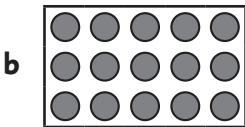
When we organise objects like this it can make it easier to work out how many objects there are in a group. We can use skip counting to help.



1 How many dots are there?



$\square$ groups of $\square$ is $\square$



$\square$ groups of $\square$ is $\square$



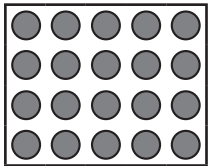
$\square$ groups of $\square$ is $\square$



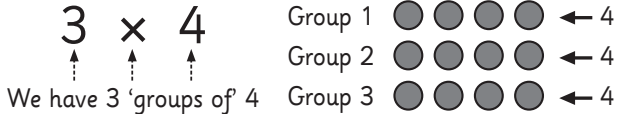
$\square$ groups of $\square$ is $\square$

2 How many dots are there? $\square$

Did you count every dot or did you use a different strategy? Explain how you did it.



Multiplication – dot diagrams



We sometimes say this as '3 times 4' or 'three fours'.

1 Merlin the Multiplication Magician thinks the following. If you think he is right, trace and colour his star.

a 3×2 means 3 groups of 2 and $2 + 2 + 2$.
Is he right?

●●
●●
●●



b 2×3 means 2 groups of 2 and $2 + 2$.
Is he right?

●●
●●



c 2×4 means 2 groups of 4. and $4 + 4$.
Is he right?

●●●●
●●●●



d 4×2 means 4 add 2. and $4 + 2$.
Is he right?

●●
●●●●



2 Add dots to the grid to show these facts. Finish them.

a

3 groups of 7 is

$7 + 7 + 7 =$

$3 \times 7 =$

b

3 groups of 6 is

$6 + 6 + 6 =$

$3 \times 6 =$

Multiplication – dot diagrams

You will need:  a partner  scissors  counters  a lead pencil



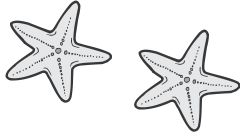
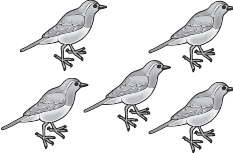
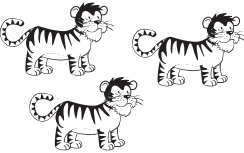
What to do:

Look at the pictures. How many legs or arms can you see? Write the matching multiplication fact in the box below. Cut out the pictures and their boxes and spread them out.

What to do next:

Take turns choosing a picture. Don't touch it or tell your partner which one you have chosen. Make a dot diagram using counters to match the picture. Your partner decides which picture matches the dot diagram and places it next to the diagram. Are they right? Talk it through if you disagree.

When all the pictures are matched with a dot diagram, show your teacher. Can you score $\frac{6}{6}$?

		
$2 \times 5 = 10$		
	