



Math (CP) Department

Academic Year : 2025/2026

Name : _____

Grade : 3 (A & B)

Date : _____

Booklet 1

Multiplication is Repeated Addition

Arrays can be used to show that multiplication is repeated addition.



Addition:

$$2 + 2 + 2 = 6$$

Multiplication:

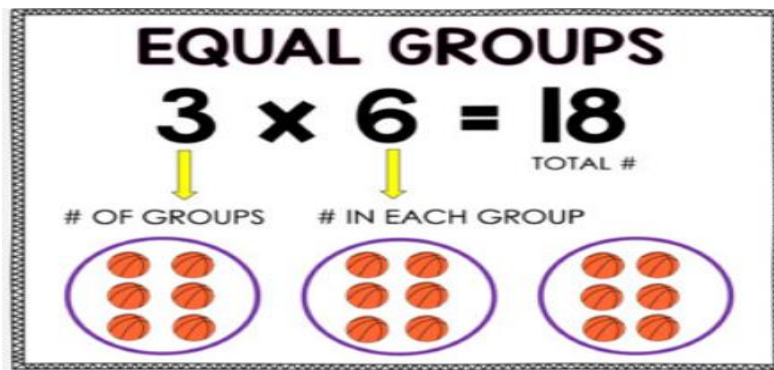
3 groups of 2 is 6

3 times 2 equals 6

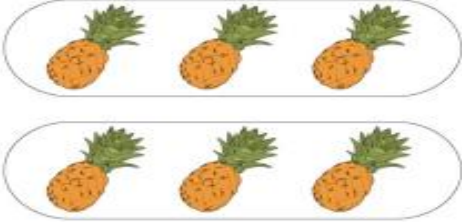
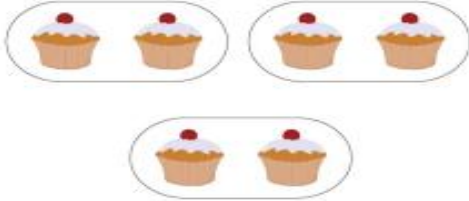
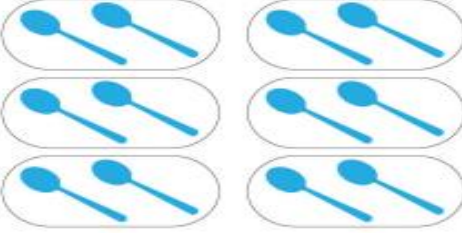
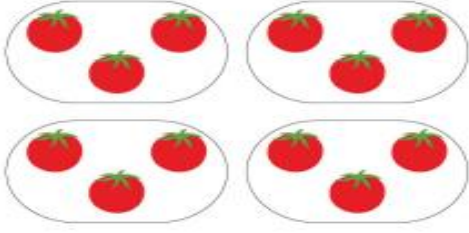
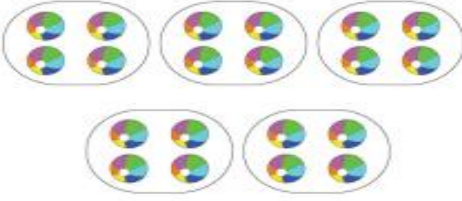

$$3 \times 2 = 6$$

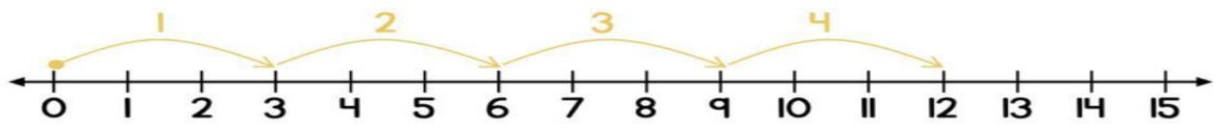
Q1) Using repeated addition, fill in the blanks to describe the models.

1		$2 + 2 + 2$ $=$ _____	$3 \times 2 =$ _____
2		$3 + 3 + 3$ $=$ _____	$3 \times 3 =$ _____
3		$4 + 4$ $=$ _____	$2 \times 4 =$ _____
4		$1 + 1 + 1 + 1 + 1$ $=$ _____	$5 \times 1 =$ _____



Q2) Complete the multiplication sentence using equal groups strategy.

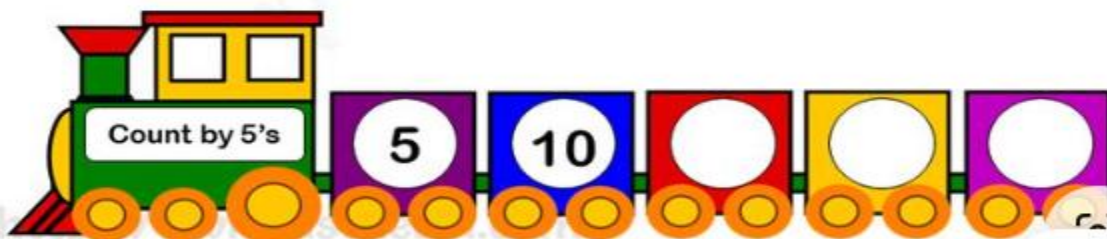
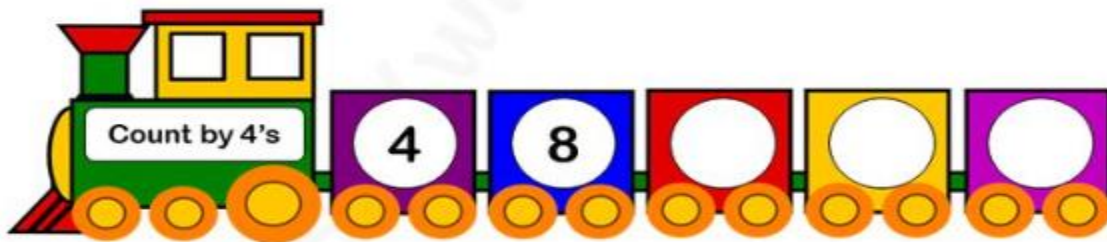
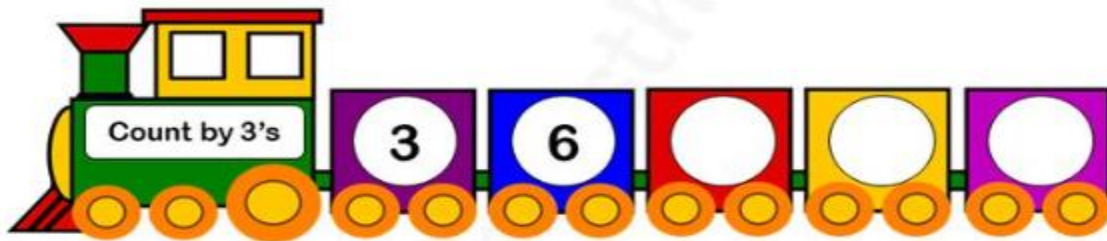
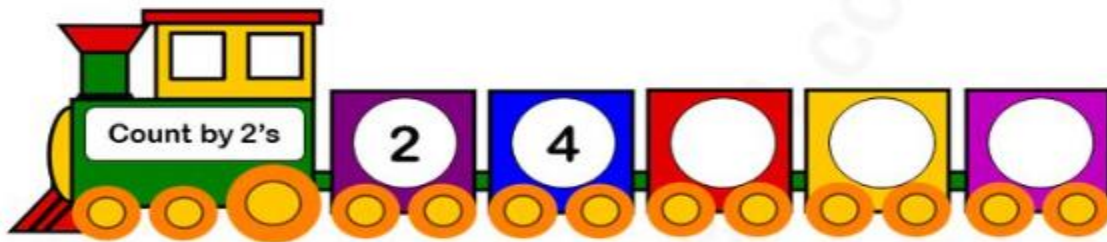
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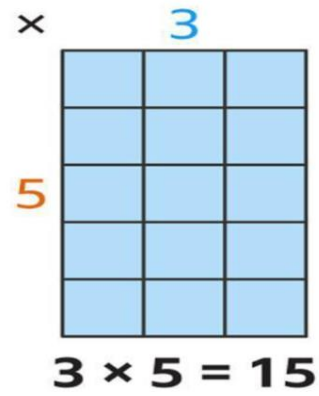
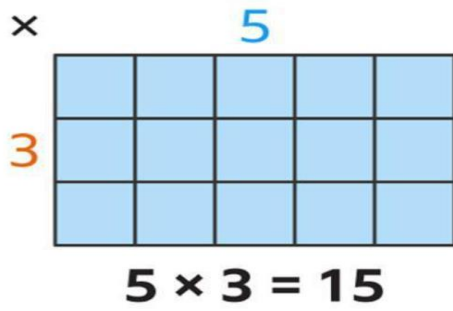


4 jumps of 3

$$4 \times 3 = 12$$

Q3) Using skip counting, find the missing numbers.





Q4) Using array, complete the following.



4 x = 8



x 4 = 4



x 3 = 9



5 x = 10



x 2 = 4





2 x = 6


Any number multiplied by 1 always equals the same number.


Any number multiplied by 0 always equals zero.

Q5) Practice multiplying by 1:

a 
8 groups of 1 are equal to
 $\times 1 =$

b 
6 groups of 1 are equal to
 $\times 1 =$

c 
5 groups of 1 are equal to
 $\times 1 =$

d 
4 groups of 1 are equal to
 $\times 1 =$

Q6) Practice multiplying by 1 and 0:

a $12 \times 0 =$

b $6 \times 1 =$

c $3 \times 0 =$

d $2 \times 1 =$

e $8 \times 0 =$

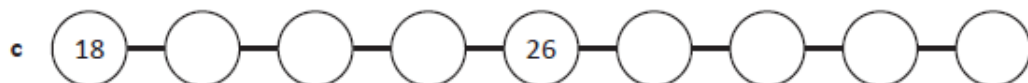
f $20 \times 1 =$

Q7) Complete this grid:

\times	9	10	6	1	5	4	7	3	8	2
0										
1										

Counting in 2s will help you know many times table facts.

Q8) Complete each pattern by counting in 2s:



Q9) Show how many dots there are in each array by counting in 2s. Then write the times table fact below:



a 6 twos

$$\square \times 2 = \square$$



b 8 twos

$$\square \times 2 = \square$$



c 3 twos

$$\square \times 2 = \square$$



d 5 twos

$$\square \times 2 = \square$$



e 4 twos

$$\square \times 2 = \square$$



f 9 twos

$$\square \times 2 = \square$$

Q10) How many straws are in:

a 3 drinks?

$$\square \times 2 = \square$$

b 10 drinks?

$$\square \times 2 = \square$$

c 5 drinks?

$$\square \times 2 = \square$$

d 2 drinks?

$$\square \times 2 = \square$$



Q11) How many wheels are on:

a 4 bikes?

$$\square \times 2 = \square$$

b 9 bikes?

$$\square \times 2 = \square$$

c 7 bikes?

$$\square \times 2 = \square$$

d 3 bikes?

$$\square \times 2 = \square$$



Q12) Double each number:

a $6 \times 2 = \square$

b $9 \times 2 = \square$

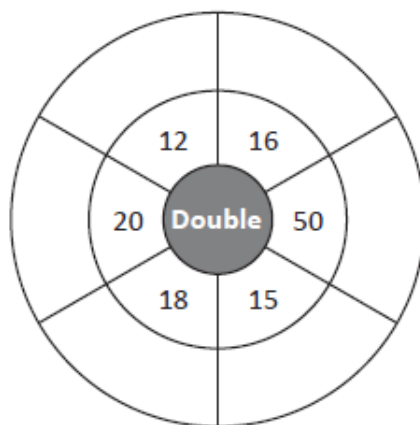
c $8 \times 2 = \square$

d $7 \times 2 = \square$

Multiplying by 2 is the same as doubling.

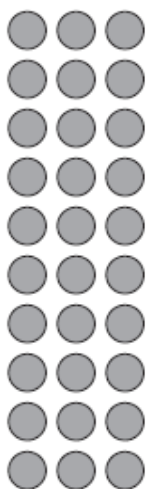


Q13) Complete this doubling wheel. These facts are not in the 2 times table, but they are facts that are useful to know.



Practice your 3 times table.

- Q14) Use this array to complete the 3 times table:



$$\begin{array}{l} 1 \times 3 = \square \\ 2 \times 3 = \square \\ 3 \times 3 = \square \\ 4 \times 3 = \square \\ 5 \times 3 = \square \\ 6 \times 3 = \square \\ 7 \times 3 = \square \\ 8 \times 3 = \square \\ 9 \times 3 = \square \\ 10 \times 3 = \square \end{array}$$

Now try them mixed up:

a $3 \times 3 = \square$	b $8 \times 3 = \square$
c $7 \times 3 = \square$	d $10 \times 3 = \square$
e $2 \times 3 = \square$	f $4 \times 3 = \square$
g $5 \times 3 = \square$	h $6 \times 3 = \square$
i $9 \times 3 = \square$	j $1 \times 3 = \square$

- Q15) Alfred is an alien from the Planet Trampoline. The surface of Planet Trampoline is like walking on a trampoline. That's why Alfred and all his race of aliens need 3 legs for extra balance. They also have 3 fingers on each hand and 3 eyes.

- a How many legs for:

6 aliens?

$$6 \times \square = \square$$

4 aliens?

$$4 \times \square = \square$$

- b How many eyes for:

3 aliens?

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

10 aliens?

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

- c How many fingers on one hand for:

9 aliens?

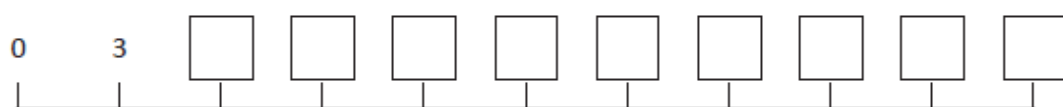
$$\square \times \square = \square$$

5 aliens?

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



Q16) Label the number line so it goes up in 3s:



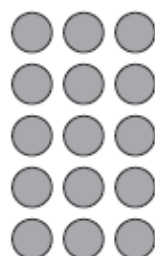
Q17) Write two turnaround facts for each array. The first one has been done for you.



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



b $\boxed{} \times \boxed{} = \boxed{}$
 $\boxed{} \times \boxed{} = \boxed{}$



c $\boxed{} \times \boxed{} = \boxed{}$
 $\boxed{} \times \boxed{} = \boxed{}$



d $\boxed{} \times \boxed{} = \boxed{}$
 $\boxed{} \times \boxed{} = \boxed{}$



e $\boxed{} \times \boxed{} = \boxed{}$
 $\boxed{} \times \boxed{} = \boxed{}$



f $\boxed{} \times \boxed{} = \boxed{}$
 $\boxed{} \times \boxed{} = \boxed{}$

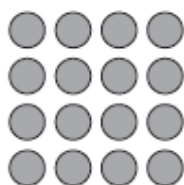
Practice your 4 times table.

Q18) Write the multiplication fact for each array:



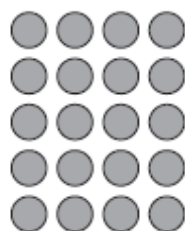
a 3 fours

$$\square \times 4 = \square$$



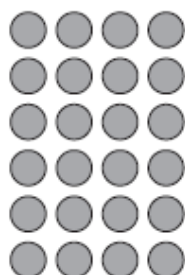
b 4 fours

$$\square \times 4 = \square$$



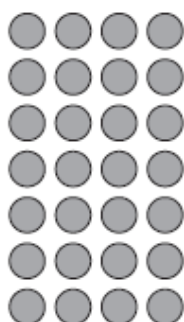
c 5 fours

$$\square \times 4 = \square$$



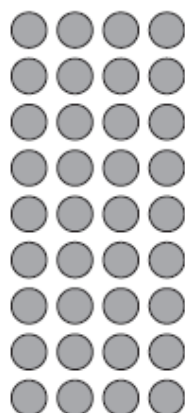
d 6 fours

$$\square \times 4 = \square$$



e 7 fours

$$\square \times 4 = \square$$



f 9 fours

$$\square \times 4 = \square$$

Q19) How many cupcakes are there on:

a 4 plates?

$$\square \times 4 = \square$$

b 3 plates?

$$\square \times 4 = \square$$



c 7 plates?

$$\square \times 4 = \square$$

d 9 plates?

$$\square \times 4 = \square$$

e 2 plates?

$$\square \times 4 = \square$$

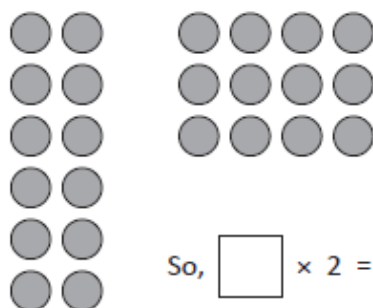
Q20) Here is a half of a hundred grid:

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

- a Circle the counting pattern of 2s.
Cross out the counting pattern of 4s.
- b What do you notice?

Q21) Complete the matching $\times 2$ and $\times 4$ facts:

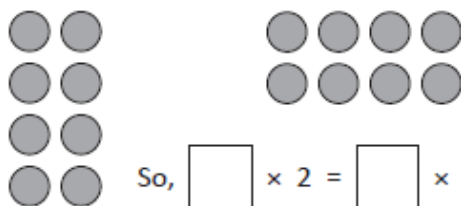
- a $6 \times 2 = 12$ and $3 \times 4 = 12$



So, $\square \times 2 = \square \times 4$

Can you see that the $\times 4$ arrays have half the rows and double the columns of the $\times 2$? This means there is the same total, but the array is arranged differently.

- b $\square \times 2 = \square$ and $\square \times 4 = \square$



So, $\square \times 2 = \square \times 4$



c $8 \times 2 = \square \times 4$

d $10 \times 2 = \square \times 4$

Use repeated addition to find the total number of fingers.

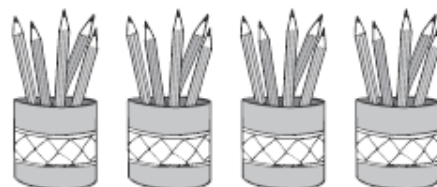


$$5 + 5 + 5 = 15$$

3 groups of 5 is equal to 15.

Q22) Find the total of each group by using repeated addition.

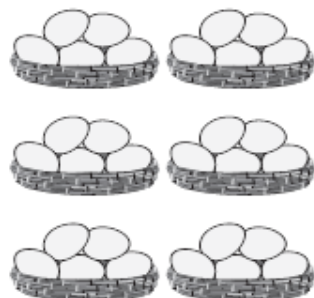
a How many pencils?



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

\square groups of \square is equal to \square

b How many eggs?



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

\square groups of \square is equal to \square

c How many beads?



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

\square groups of \square is equal to \square


This is a multiplication symbol \times and it means "groups of."

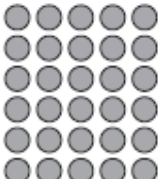
So instead of repeated addition, we can use a multiplication symbol.

$$5 + 5 + 5 + 5 + 5 = 25$$


$$5 \times 5 = 25$$

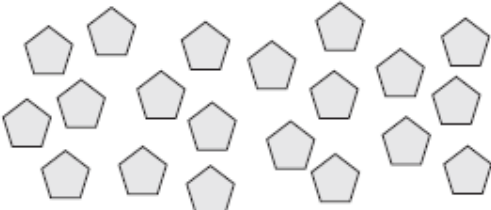
Q23) Find the total of each group by using repeated addition:

a  groups of is equal to
 \times =

b  rows of is equal to
 \times =

Q24) Ring the shapes in groups of 5. One group is ringed for you. Then complete the multiplication fact.

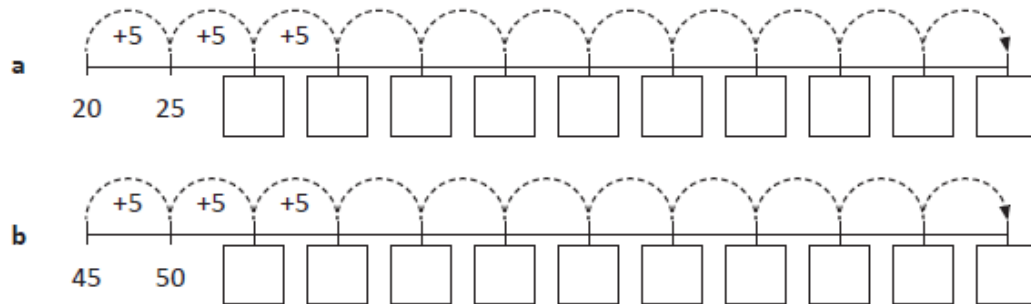
a  groups of is equal to
 \times 5 =

b  groups of is equal to
 \times 5 =

Here is a skip counting pattern on a hundred grid. It shows a counting pattern of 5.

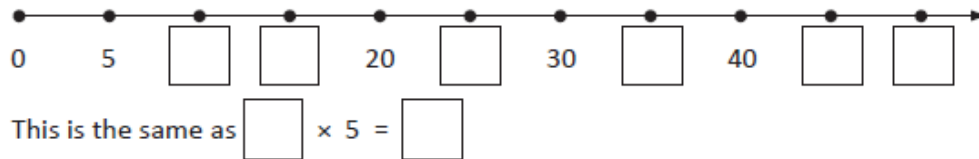
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Q25) Finish each pattern by counting in 5s:

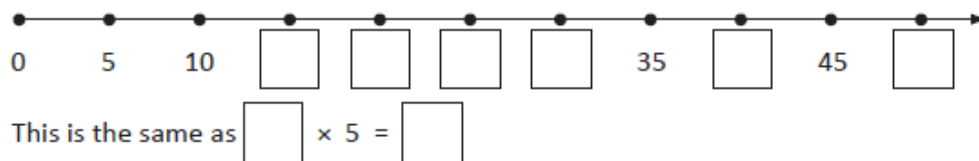


Q26) Show $\times 5$ multiplication facts on each number line.

a Finish labeling this number line and then show 5 jumps starting from 0:



b Finish labeling this number line and then show 7 jumps starting from 0:



- Q27) Write a 5 times table fact for each set of 5 cent coins. The first one has been done for you.



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



$$\boxed{} \times \boxed{} = \boxed{}$$



$$\boxed{} \times \boxed{} = \boxed{}$$

- Q28) Times tables are a set of multiplication facts from 1 to 10 based on multiplying by the same number each time. Write the answers for the 5 times table.

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

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

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

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

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

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

$$7 \times 5 = \boxed{}$$

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

$$9 \times 5 = \boxed{}$$

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

Now answer the mixed up 5 times table.

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

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

c $9 \times 5 = \boxed{}$

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

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

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

g $7 \times 5 = \boxed{}$

h $5 \times 5 = \boxed{}$

i $1 \times 5 = \boxed{}$

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

Write the missing number in each 5 times table fact.

a $\boxed{} \times 5 = 35$

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

c $\boxed{} \times 5 = 50$

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

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

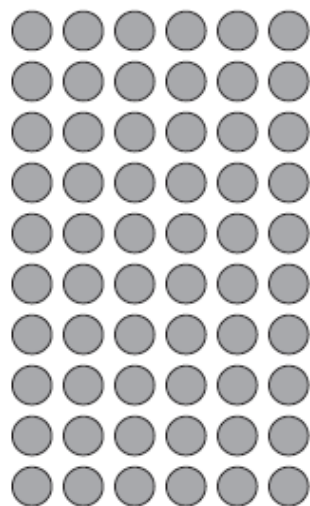
f $\boxed{} \times 5 = 10$

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

h $\boxed{} \times 5 = 45$

Practice your 6 times table. Did you know that we can use $\times 6$ for short?
So $\times 6$ just means 6 times table, just as $\times 3$ means 3 times table.

- Q29) Use this array to complete the 6 times table:



$$\begin{array}{l} 1 \times 6 = \square \\ 2 \times 6 = \square \\ 3 \times 6 = \square \\ 4 \times 6 = \square \\ 5 \times 6 = \square \\ 6 \times 6 = \square \\ 7 \times 6 = \square \\ 8 \times 6 = \square \\ 9 \times 6 = \square \\ 10 \times 6 = \square \end{array}$$

Fill in the missing numbers:

$$\begin{array}{l} \text{a } \square \times 6 = 54 \\ \text{b } \square \times 6 = 36 \\ \text{c } \square \times 6 = 18 \\ \text{d } \square \times 6 = 24 \\ \text{e } \square \times 6 = 60 \\ \text{f } \square \times 6 = 12 \\ \text{g } \square \times 6 = 48 \end{array}$$

- Q30) Complete this table by recalling the 3 times table. Then complete the 6 times table. Can you see how the 3 times table helps with the 6?

	3	8	2	5	9	10	6
$\times 3$							
$\times 6$							

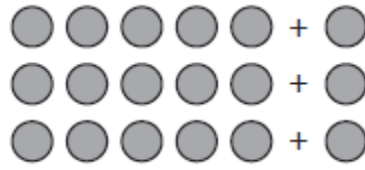
- Q31) Solve these problems.

- a I saved \$7 every week over 6 weeks.
How much did I save in total?
- b 8 pencil cases had 3 blue pens in each.
How many blue pens are there in total?
- c 9 classes each baked 6 cakes for the school fundraiser. How many cakes were baked in total?


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

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

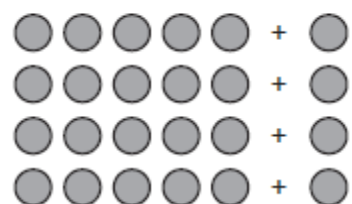
$$\square \times \square = \square$$


 You know more times tables facts than you realize.
 For example, knowing your $\times 5$ can help with your $\times 6$.
 The array shows 3 rows of 5. If we add another dot to each row we can change 3 rows of 5 to 3 rows of 6.
 This is called building up.
 $3 \times 5 = 15 + 3 \longrightarrow 3 \times 6 = 18$

Q32) Change these $\times 5$ arrays into $\times 6$ arrays.

a


 $2 \times 5 = \square + \square \longrightarrow 2 \times 6 = \square$

b


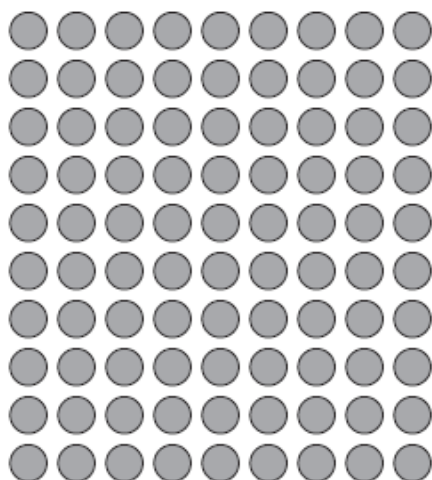
 $4 \times 5 = \square + \square \longrightarrow 4 \times 6 = \square$

Q33) Complete this table to show how to change a $\times 5$ array to a $\times 6$ array by building up.
 The first one has been done for you.

	$\times 5$	Build up by	$\times 6$
a	$3 \times 5 = 15$	3	$3 \times 6 = 18$
b	$2 \times 5 = 10$		
c	$7 \times 5 = 35$		
d	$4 \times 5 = 20$		
e	$6 \times 5 = 30$		
f	$9 \times 5 = 45$		

Practice your 9 times table.

- Q34) Use this array to complete the 9 times table:



$$\begin{array}{l} 1 \times 9 = \square \\ 2 \times 9 = \square \\ 3 \times 9 = \square \\ 4 \times 9 = \square \\ 5 \times 9 = \square \\ 6 \times 9 = \square \\ 7 \times 9 = \square \\ 8 \times 9 = \square \\ 9 \times 9 = \square \\ 10 \times 9 = \square \end{array}$$

- Q35) Complete these $\times 9$ facts. Look out for turnarounds.

a $3 \times 9 = \square$

b $9 \times 4 = \square$

c $6 \times 9 = \square$

d $2 \times 9 = \square$

e $9 \times 5 = \square$

f $1 \times 9 = \square$

- Q36) Find the cost of these items:

a 6 fruit salads = \square

b 4 banana splits = \square

c 3 mango juices = \square

d 5 fruit salads = \square

e 3 banana splits = \square

f 7 mango juices = \square



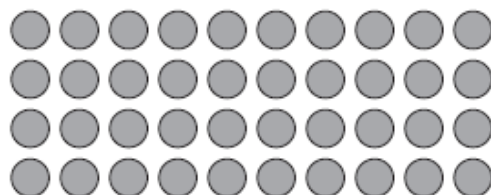


$$3 \times 9 = \boxed{?}$$

If you get stuck on a $\times 9$, remember the $\times 10$ fact and build down.

$$3 \times 10 = 30 - 3 \longrightarrow 3 \times 9 = 27$$

Q37) Change this $\times 10$ array into a $\times 9$ array:

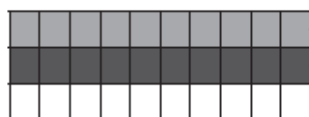


$$4 \times 10 = \boxed{} - 4 \longrightarrow 4 \times 9 = \boxed{}$$

Q38) Complete this table to show how to change a $\times 10$ array to a $\times 9$ array by taking 1 from each row.

$\times 10$	Build down by	$\times 9$
$3 \times 10 = 30$	3	$3 \times 9 = 27$
$5 \times 10 = 50$		
$9 \times 10 = 90$		
$6 \times 10 = 60$		
$4 \times 10 = 40$		
$2 \times 10 = 20$		
$8 \times 10 = 80$		
$7 \times 10 = 70$		

When we multiply we make number patterns. Look at this grid.



← This is 1 row of 10. We have colored 10 squares.

$$1 \times 10 = 10$$

← Now we have colored 2 rows of 10. This is 20 squares.

$$2 \times 10 = 20$$

Q39) a Color each row a different color and finish the facts.

										1	×	10	=	
										2	×	10	=	
											×	10	=	
											×		=	
											×		=	
											×		=	
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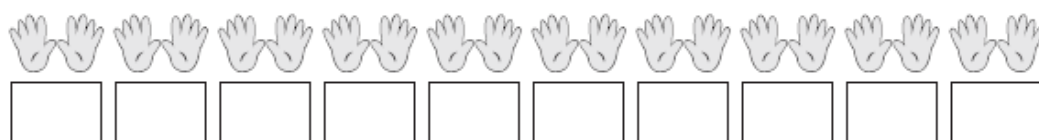
b Write the answers from question 1a in the boxes below.

10	20								
----	----	--	--	--	--	--	--	--	--

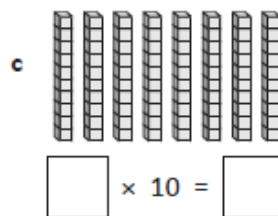
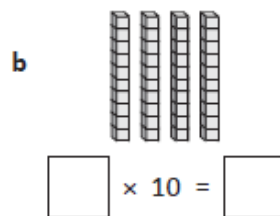
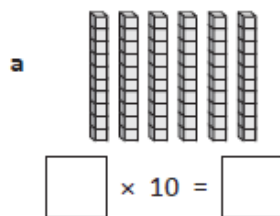
c What do you notice?

If you can skip count in 10s, you know your 10 times table.

Q40) Complete this sequence by counting in 10s:



Q41) Count the longs and then complete the multiplication fact:



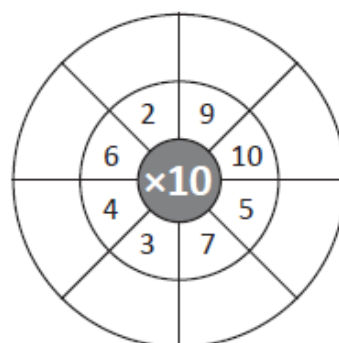
Q42) Complete the 10 times table:

$1 \times 10 = \square$
 $2 \times 10 = \square$
 $3 \times 10 = \square$
 $4 \times 10 = \square$
 $5 \times 10 = \square$
 $6 \times 10 = \square$
 $7 \times 10 = \square$
 $8 \times 10 = \square$
 $9 \times 10 = \square$
 $10 \times 10 = \square$

Write the missing number in each 10 times table fact:

a $\square \times 10 = 50$
b $\square \times 10 = 80$
c $\square \times 10 = 70$

Complete this $\times 10$ wheel:



When we multiply any number by 10, a zero goes in the ones column and the digits all move one space along to the left.

Hundreds	Tens	Ones
		2
	2	0

$$2 \times 10 = 20$$

Q43) Show how the digits all move along when they are multiplied by 10 and write the answers below:

a

Hundreds	Tens	Ones
		7
	7	0

$$7 \times 10 = \boxed{}$$

b

Hundreds	Tens	Ones
		3

$$3 \times 10 = \boxed{}$$

c

Hundreds	Tens	Ones
	1	5

$$15 \times 10 = \boxed{}$$

d


Hundreds	Tens	Ones
	2	2


$$22 \times 10 = \boxed{}$$

Q44) Connect these $\times 10$ facts to the answers:

16×10	62×10	93×10	99×10	13×10					
220	510	930	990	850	160	130	620	720	980
72×10	51×10	85×10	22×10	98×10					

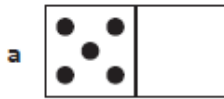
When we double, we are multiplying by 2.

Here is 1 spider.  One spider has 8 legs $1 \times 8 = 8$

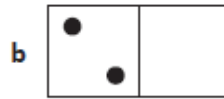
If we double it, we have 2 spiders. 

How many legs do they have? $8 + 8$ $2 \times 8 = 16$

Q45) Draw dots on the other side of the dominoes to create doubles. Finish the number facts.



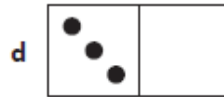
$$\boxed{2} \times \boxed{5} = \boxed{10}$$



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




$$\boxed{} \times \boxed{} = \boxed{}$$




$$\boxed{} \times \boxed{} = \boxed{}$$


Q46) Look at the twins. Write the multiplication facts to match.

a How many  ?

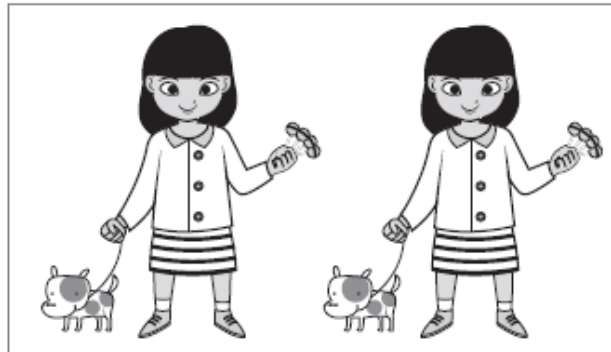
$$\boxed{} \times \boxed{} = \boxed{}$$


b How many  ?

$$\boxed{} \times \boxed{} = \boxed{}$$

c How many  ?

$$\boxed{} \times \boxed{} = \boxed{}$$



d How many  ?

$$\boxed{} \times \boxed{} = \boxed{}$$

Q47) Complete the missing number calculations.

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

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

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

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

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

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

$$6 \times \boxed{} = 36$$

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

$$6 \times \boxed{} = 48$$

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

$$6 \times \boxed{} = 60$$

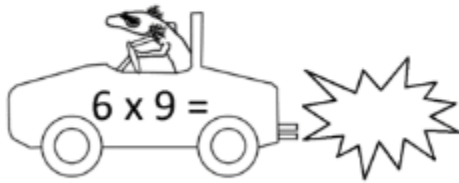
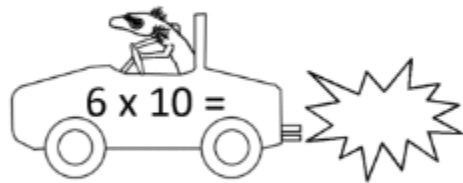
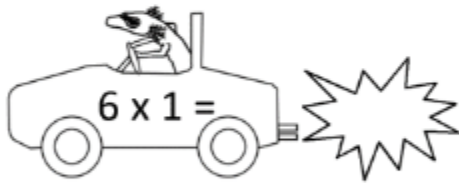
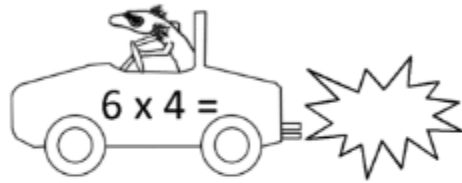
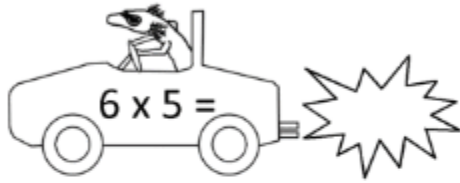
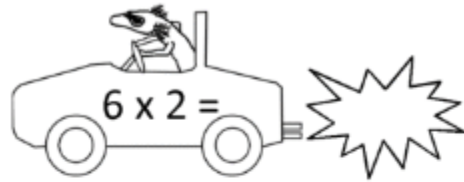
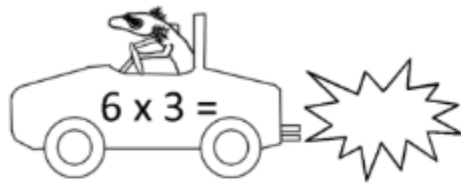
$$6 \times \boxed{} = 66$$

$$6 \times \boxed{} = 72$$

Q48) Find the products of the 6 times table. Circle the products.

6 15 30
7 18
54 4 12
22 42
36 60
8 48
13 16
72 6
48 24 66

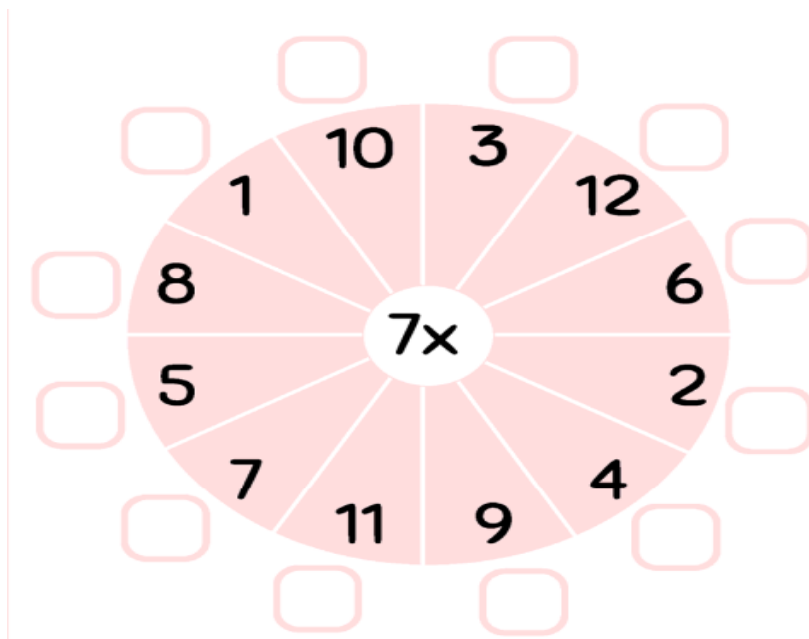
Q49) Write the answers to these multiplication facts in the smoke clouds.
Shade the smoke clouds between 20 and 40 orange.



Q50) Complete the 7 times table.

$1 \times 7 = \square$	$7 \times 7 = \square$
$2 \times 7 = \square$	$8 \times 7 = \square$
$3 \times 7 = \square$	$9 \times 7 = \square$
$4 \times 7 = \square$	$10 \times 7 = \square$
$5 \times 7 = \square$	$11 \times 7 = \square$
$6 \times 7 = \square$	$12 \times 7 = \square$

Q51)

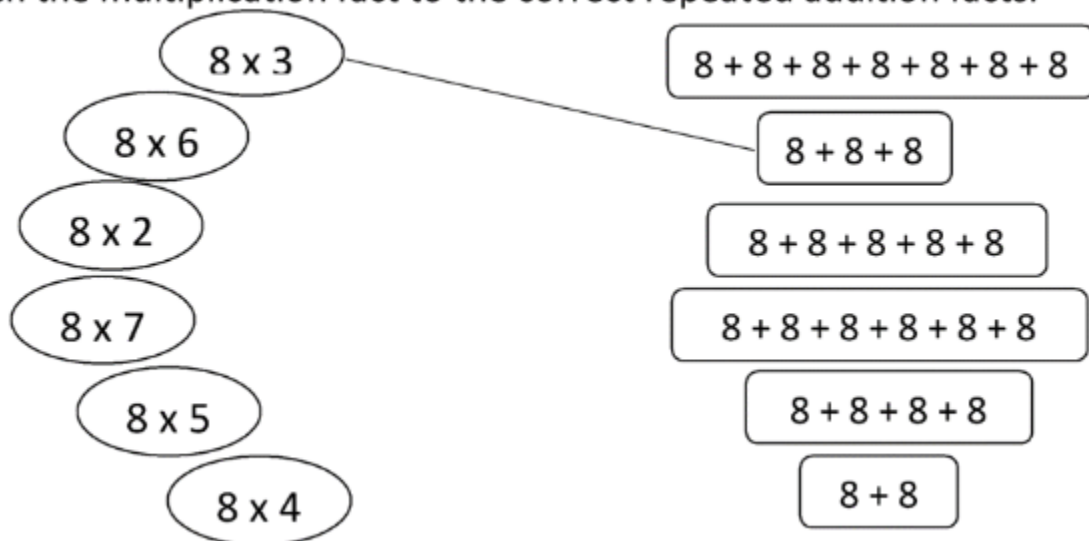


Q52) Help Newton to find his way out of the maze by shading the path counting in 8s up to 80.



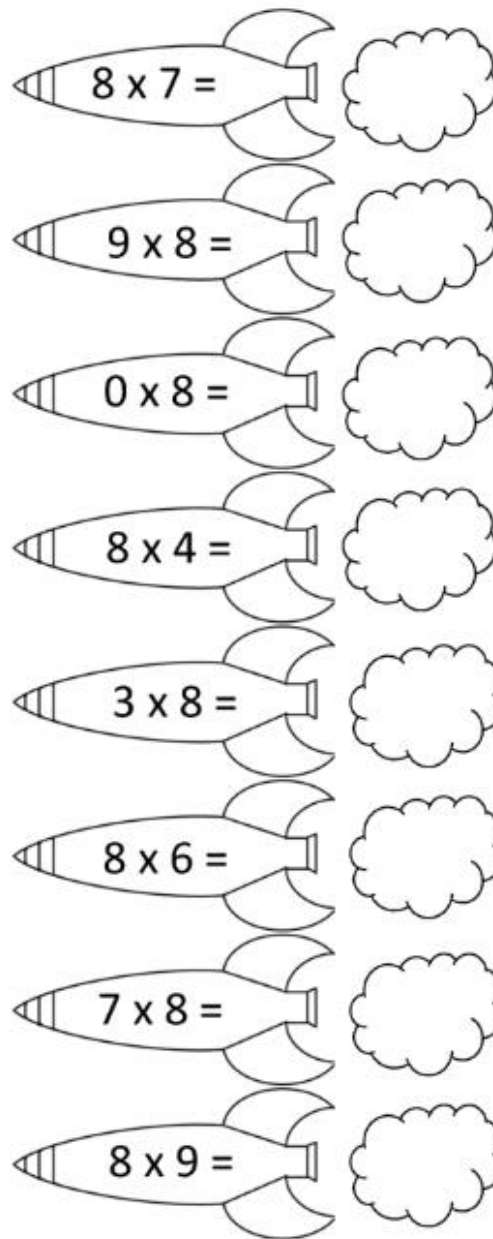
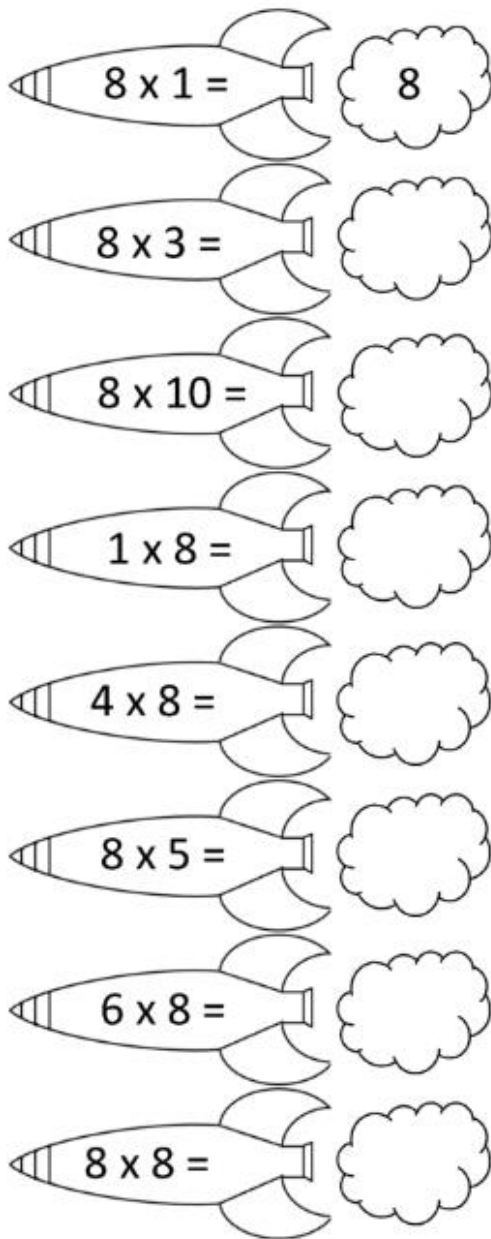
IN →	8	15	56	64	72	
	16	21	48	55	80	OUT →
	24	32	40	62	73	
	30	42	46	58	70	
	38	44	52	56	62	

Q53) Match the multiplication fact to the correct repeated addition facts.



Q54)

Write the answers inside the rocket smoke.



Q55) Fill in the missing numbers in the 9 times table.

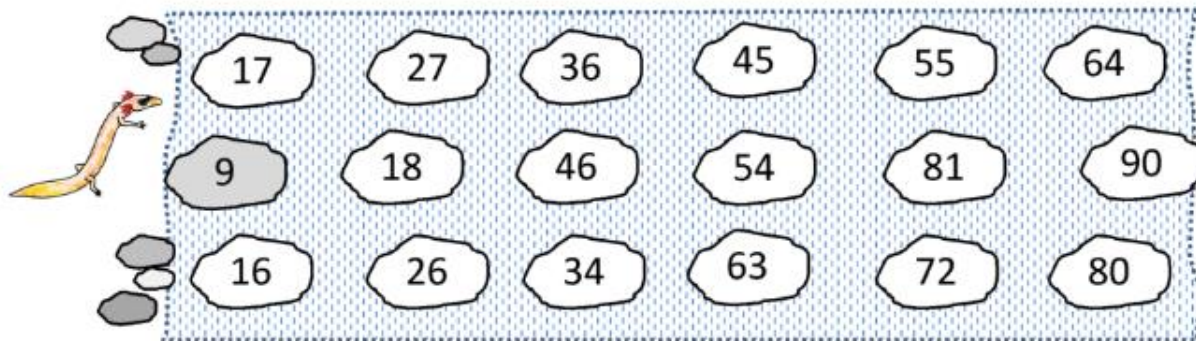
$9 \times 1 = 9$ $9 \times 2 =$ $9 \times 3 =$ $9 \times 4 =$ $9 \times 5 =$

$9 \times 6 =$ $9 \times 7 =$ $9 \times 8 =$ $9 \times 9 =$ $9 \times 10 =$

Q56) Draw lines to match the 9 times table fact to its answer.

9×3	63	9×5	9
9×7	36	9×2	45
9×4	27	9×8	81
9×10	54	9×1	72
9×6	90	9×9	18

Q57) Help Captain Salamander to cross the river by shading the stepping stones counting up in 9s.



The End