

9 TIMES-TABLE AND DIVISION FACTS



GET READY



1) How many grapes?



2) 9×2 ones =

9×2 tens =

9×2 hundreds =

3) $9 \times 2 =$

$9 \times 20 =$

$9 \times 200 =$

4) $210 - 21 =$

1) How many grapes?

$$9 + 9 + 9 + 9 + 9 = 45$$

$$9 \times 5 = 45$$

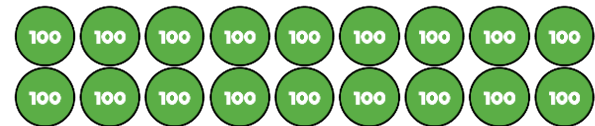
$$5 \times 9 = 45$$



2) 9×2 ones = 18 ones

9×2 tens = 18 tens

9×2 hundreds = 18 hundreds



3) $9 \times 2 = 18$

$9 \times 20 = 180$

$9 \times 200 = 1,800$

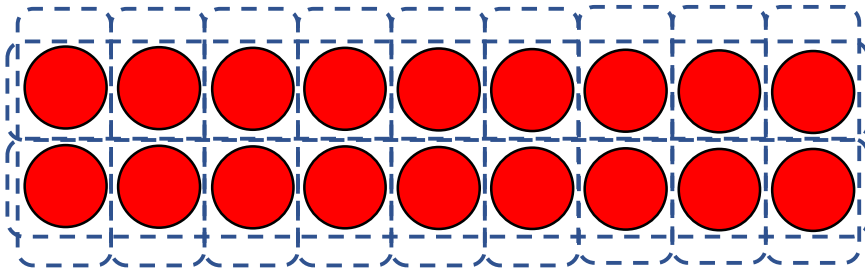
4) $210 - 21 = 189$

LET'S LEARN





$$9 + 9 = 18$$



$$2 \times 9 = 18$$

$$9 \times 2 = 18$$

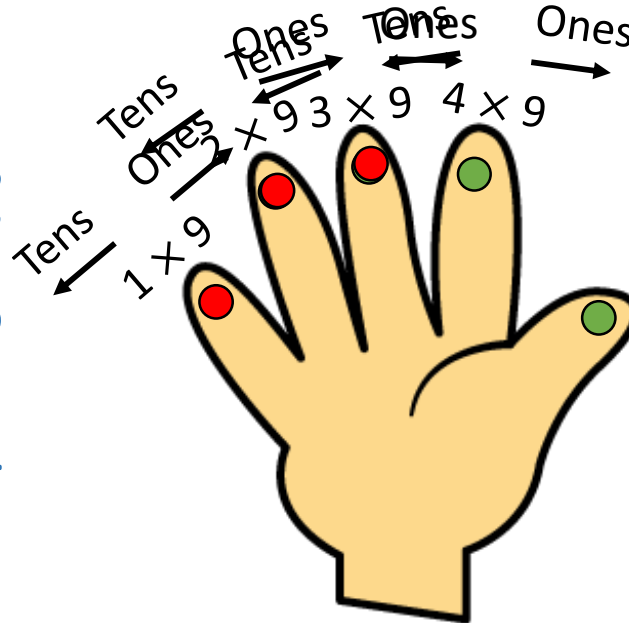
$$18 \div 9 = 2$$

$$18 \div 2 = 9$$

Tens Ones

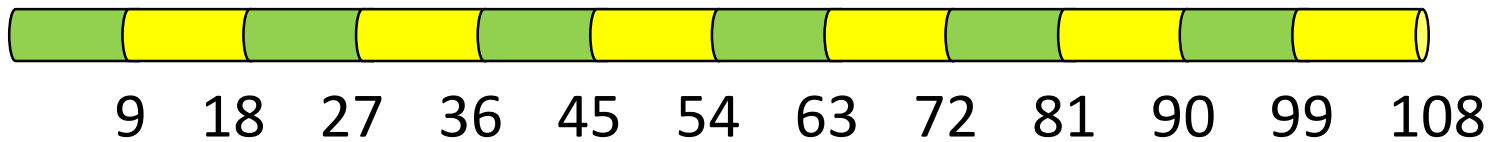
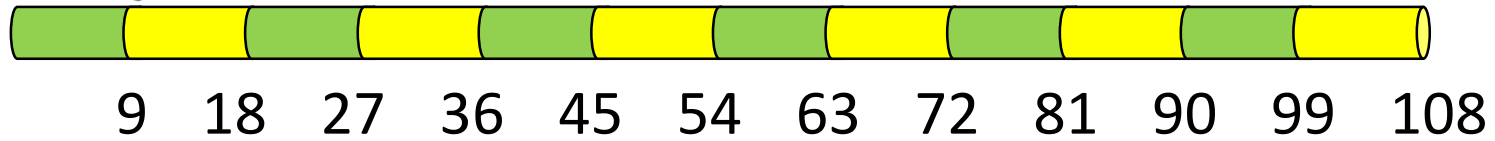


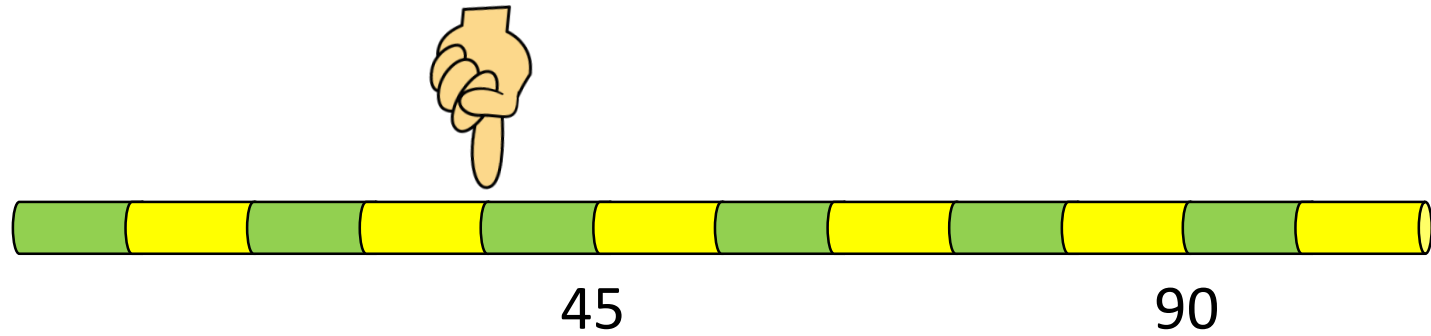
$$\begin{array}{l} 0 \times 9 = 0 \\ 1 \times 9 = 9 \\ 2 \times 9 = 18 \\ 3 \times 9 = 27 \\ 4 \times 9 = 36 \\ 5 \times 9 = 45 \\ 6 \times 9 = 54 \\ 7 \times 9 = 63 \\ 8 \times 9 = 72 \\ 9 \times 9 = 81 \\ 10 \times 9 = 90 \end{array}$$



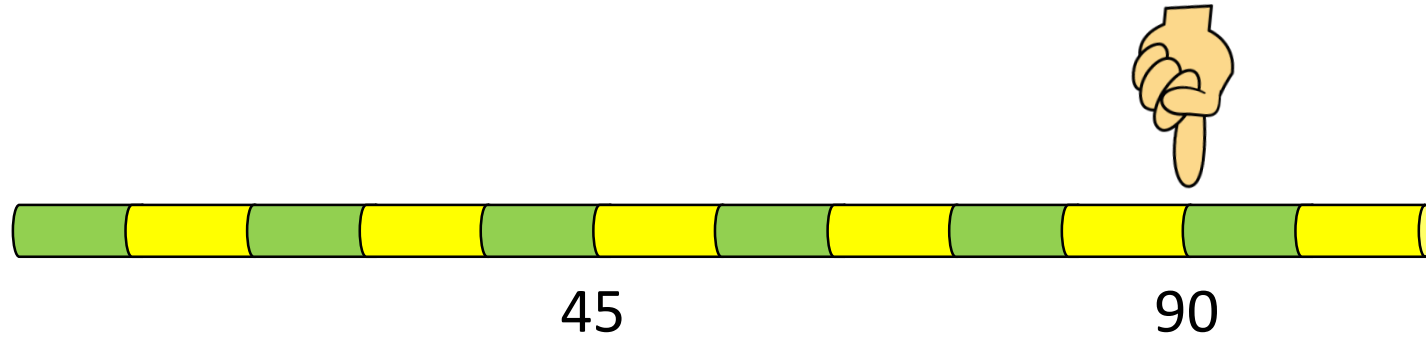
Have a think





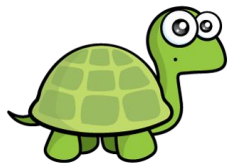


$$9 \times 4 = \boxed{36}$$



$$\boxed{12} \times 9 = 108$$

So to find the next multiple of 9 I can add 10 and subtract 1



Have a think

What patterns do you notice?

Ones decrease by 1

Tens increase by 1

Why is this alive? the case?

3	6	9	12	15	18	21	24	27	30	33	36
---	---	---	----	----	----	----	----	----	----	----	----

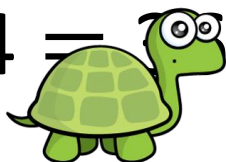
$\times 3$



9	18	27	36	45	54	63	72	81	90	99	108
---	----	----	----	----	----	----	----	----	----	----	-----

$$3 \times 4 = 12$$

$$9 \times 4 =$$



So if I know my 3
times-table I can
multiply that by 3

$\times 1$	$\times 2$	$\times 3$	$\times 4$	$\times 5$	$\times 6$	$\times 7$	$\times 8$	$\times 9$	$\times 10$	$\times 11$	$\times 12$
10	20	30	40	50	60	70	80	90	100	110	120
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12
9	18	27	36	45	54	63	72	81	90	99	108

What do you remember?



So I can multiply
by 10 and then
subtract 1 lot

think



Using what

I know that $21 \times 10 = 210$
 $210 - 21 = 189$

how could you solve this:

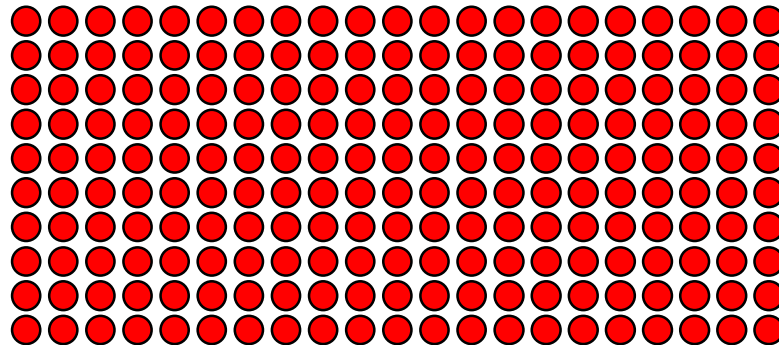
Have a think



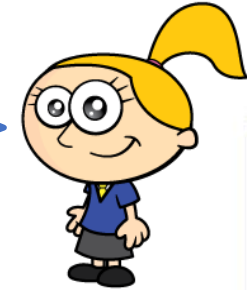
$$21 \times 9 =$$

21

10



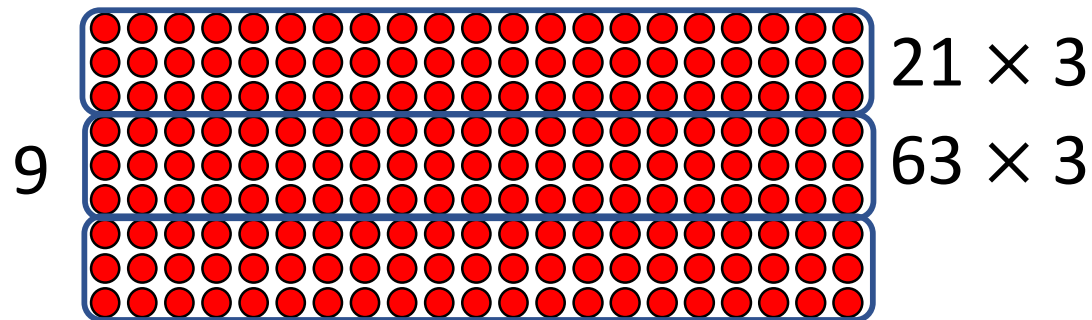
I know that $21 \times 10 = 210$
 $210 - 21 = 189$



$21 \times 3 = 63$
 $63 \times 3 = 189$

$$21 \times 9 =$$

21



I know that $21 \times 10 = 210$
 $210 - 21 = 189$

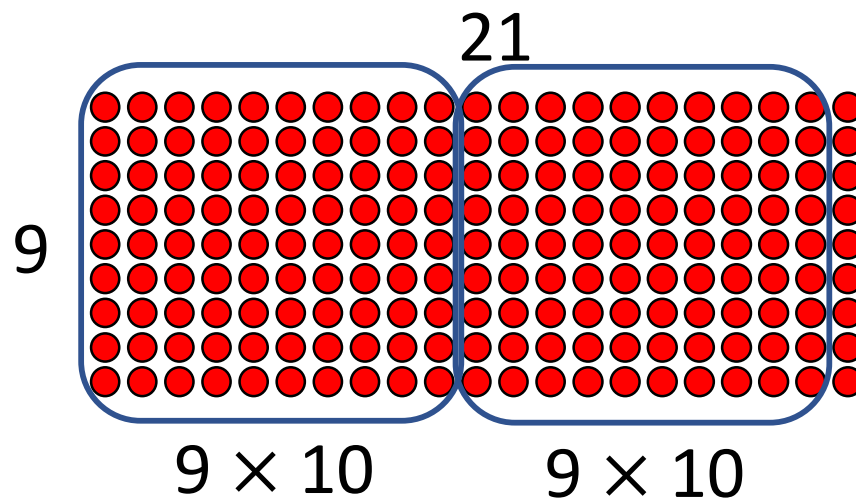


$21 \times 3 = 63$
 $63 \times 3 = 189$



2×9 is equal to 18 so
 20×9 is equal to 180
 $180 + 9 = 189$

$$21 \times 9 = 189$$



YOUR TURN

Have a go at the questions
on the worksheet

