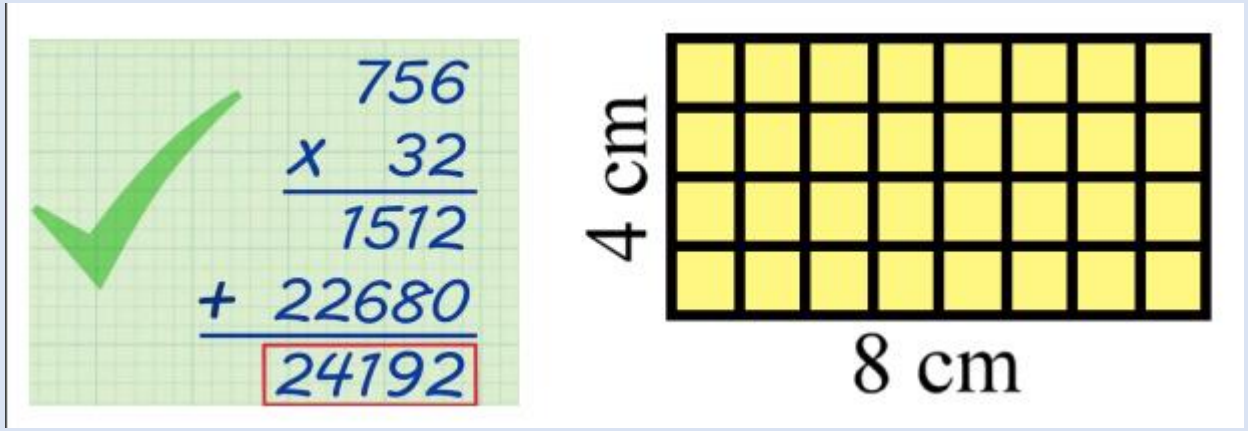
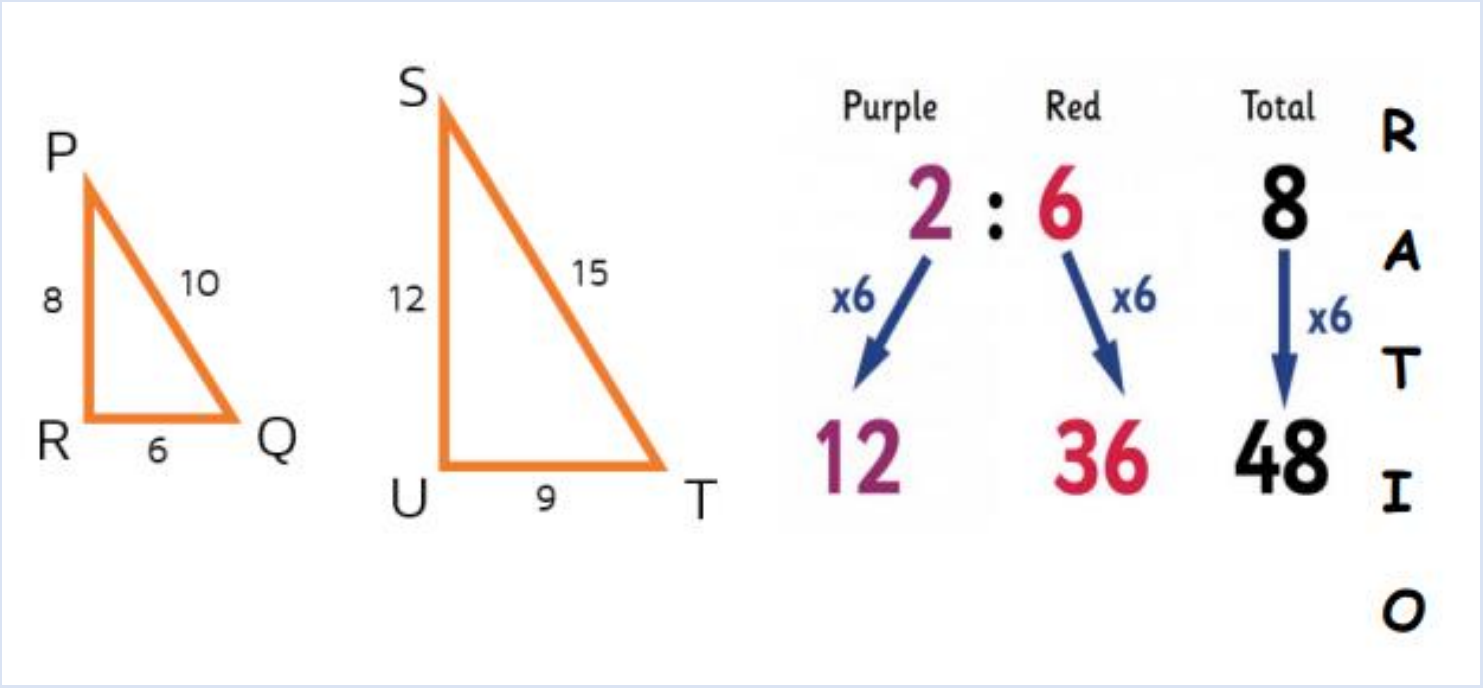

Welcome

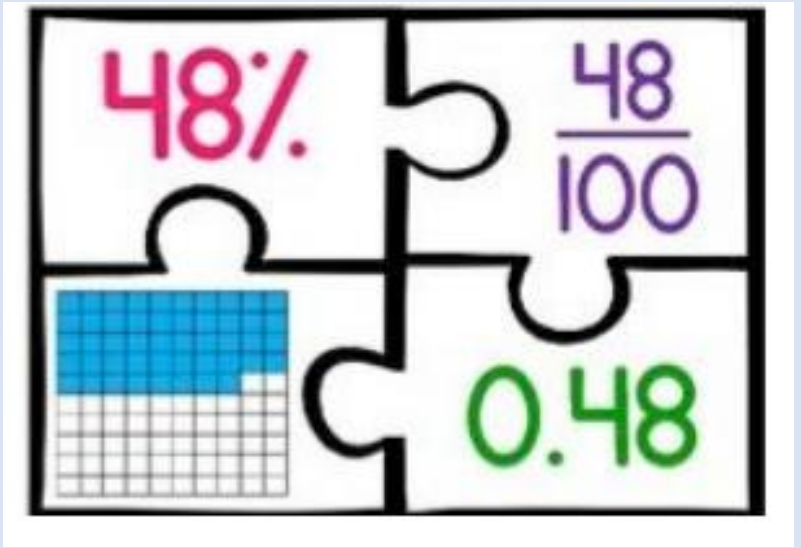
National Curriculum expectations:

Year Group	Expectation
Year 1	Count in multiples of **2, 5 and 10**. Recall and use all **doubles to 10** and corresponding halves.
Year 2	Recall and use multiplication and division facts for the **2, 5 and 10** times tables including recognising **odd and even numbers**.
Year 3	Recall and use multiplication and division facts for the **3, 4 and 8** times tables.
Year 4	Recall and use multiplication and division facts for tables up to **12 x 12**
Year 5	Revision of all times tables and division facts up to **12 x 12**
Year 6	Also: FDP, converting between units of measure…

Why is it important to know your times tables?







Year 4 multiplication test check

The purpose of the MTC is to determine whether Year 4 pupils can recall their multiplication tables up to 12x12 fluently as outlined in the National Curriculum.

Children will be tested using a computer, where they will have to answer multiplication questions against a clock. The test will last no longer than 5 minutes; children will have **6 seconds** to answer each question in a series of 25.

End of KS2 SATs (Year 6)

27/36 arithmetic paper questions (that’s ¾ of the paper!)

27/49 reasoning questions

…and in “real life”!

It’s not just about speed…

Write the missing number to make this calculation correct.

$754 \times 6 + 754 \times 3 = 754 \times \square$

flexibility

There are 25 classes in a school.

Each class has 34 pupils.

62% of all the pupils play a sport after school.

What number of pupils do not play a sport?

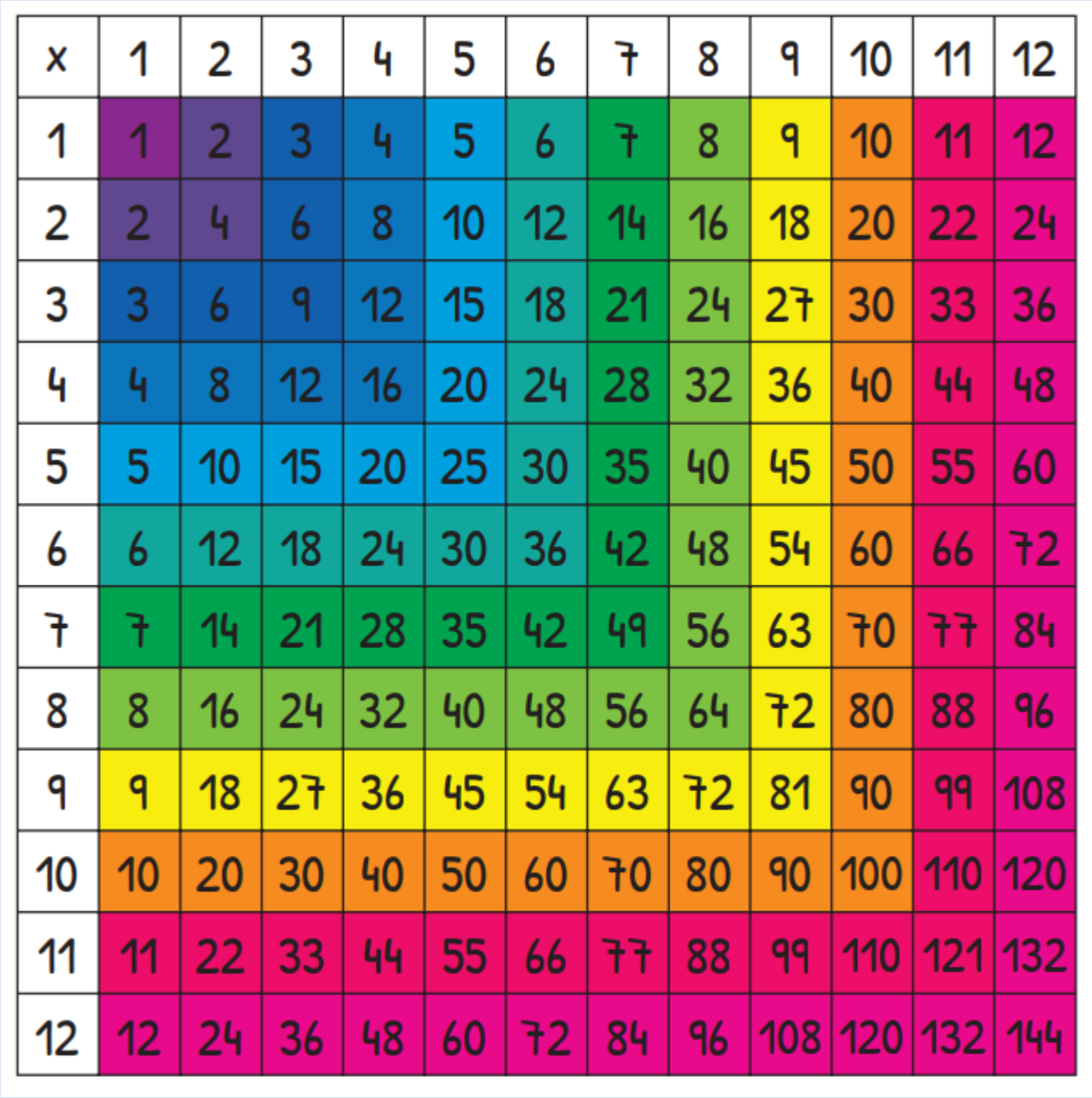
reducing the cognitive load

		□	2	3	5
×				□	3
		9	7	0	5
1	6	1	7	5	0
1	7	1	4	5	5

application of knowledge

But there's 144 facts to learn!

…or are there?



x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

We can get rid of all the red facts because they are repeats!

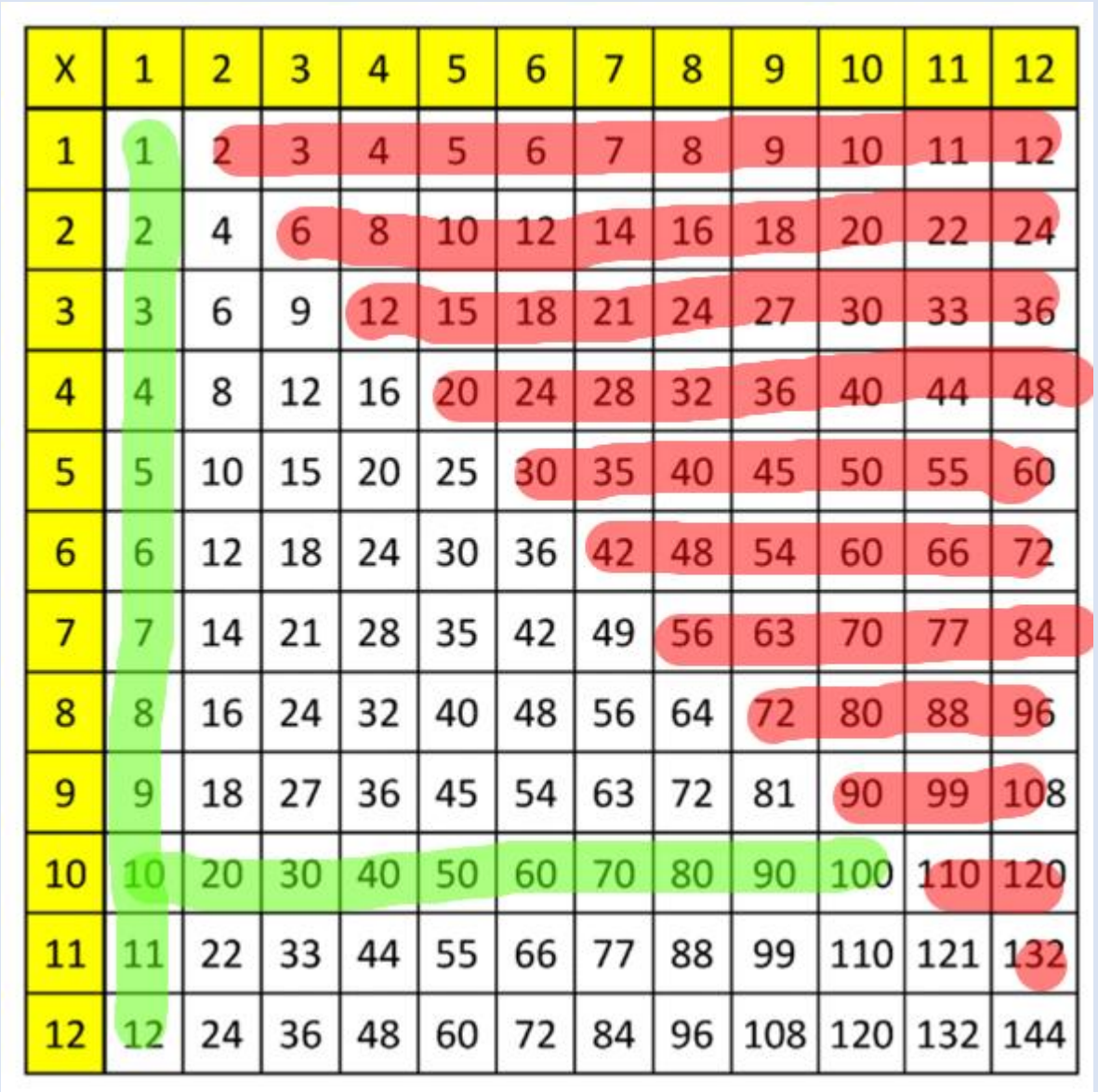
This leaves 78 facts to learn!

X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Everyone knows their 1 x table!

Most of us are fine with our 10s…

This leaves 57 facts to learn!



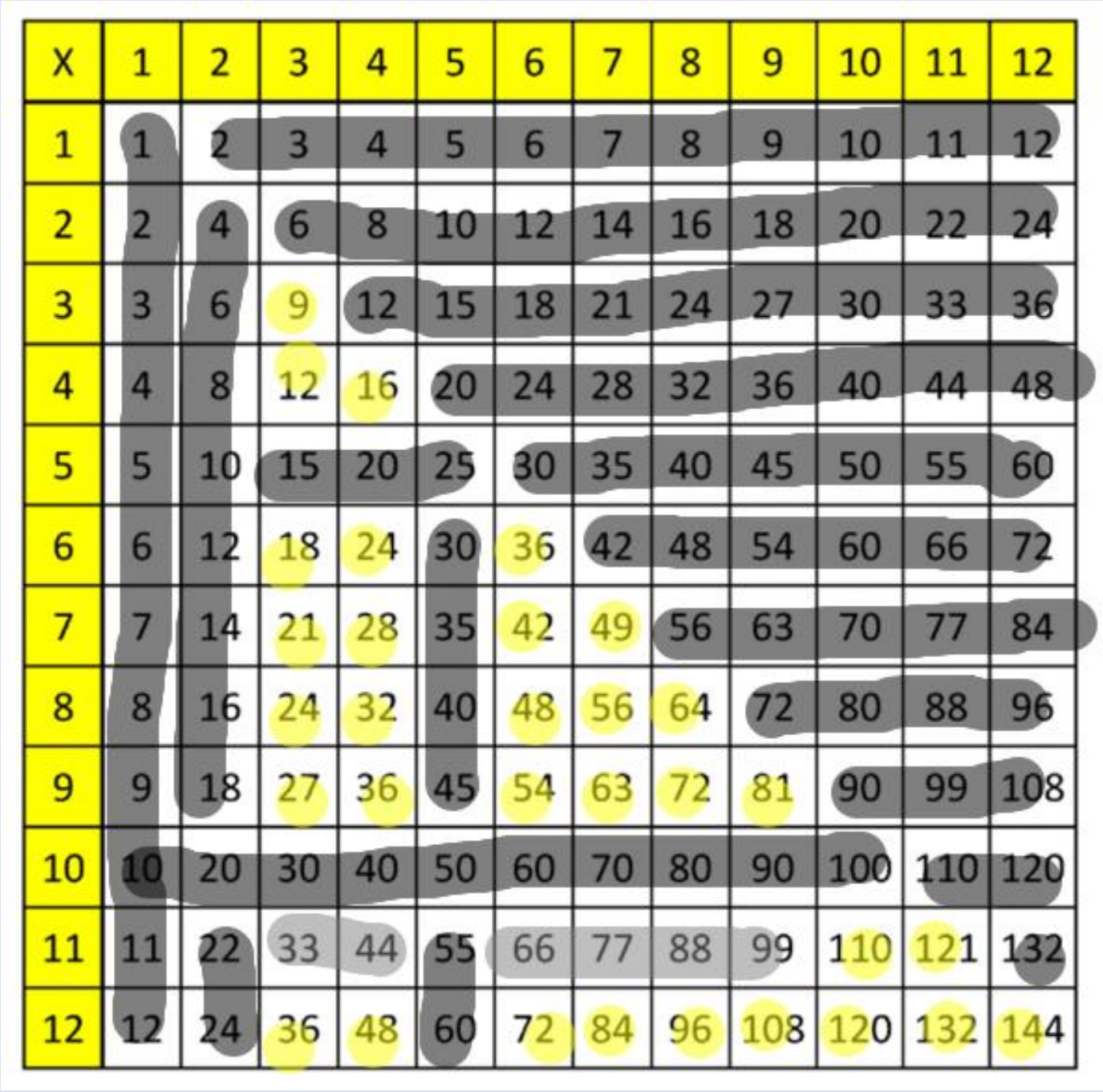
X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

2s and 5s are pretty easy to learn as well…

So are the 11s up to 10 x 11…

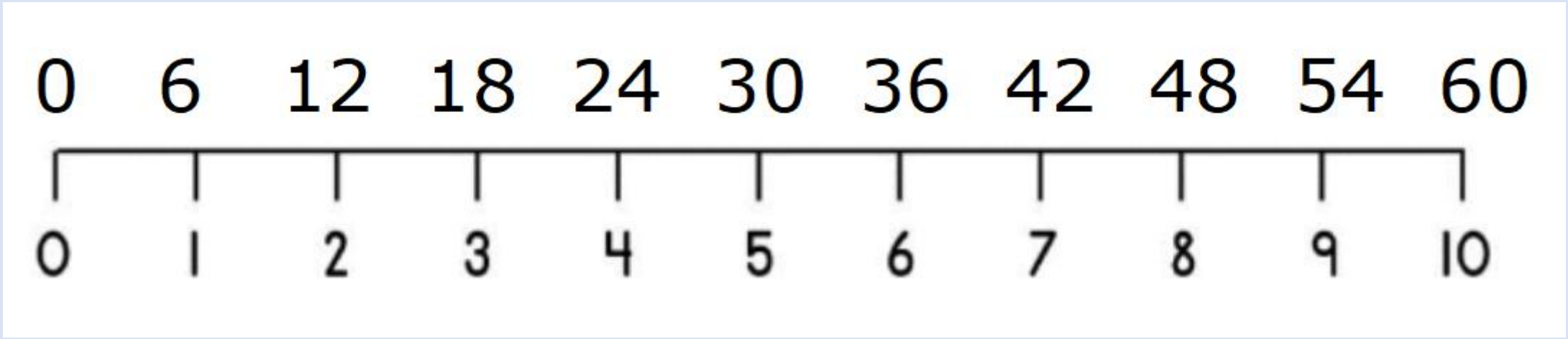
X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

So there’s actually ONLY 32 facts to learn!



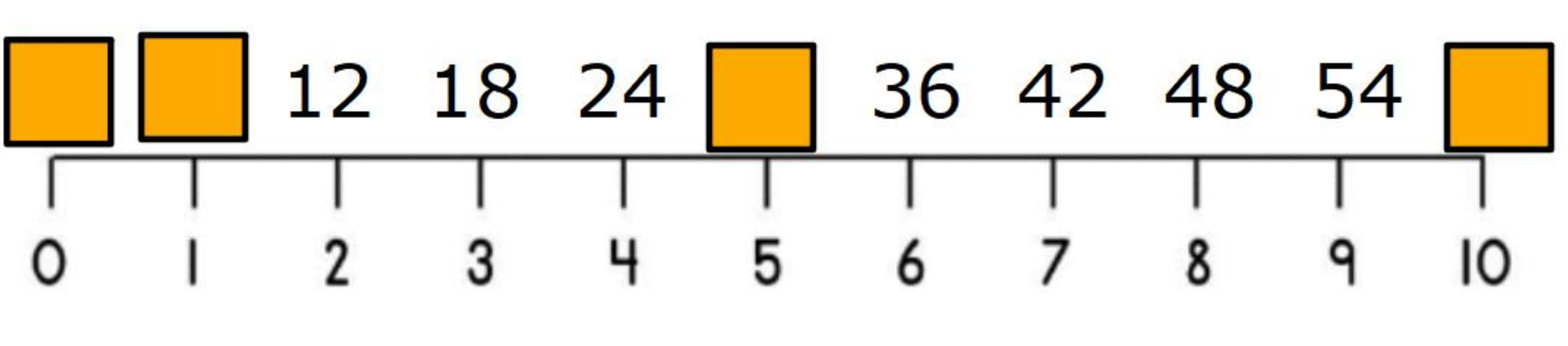
X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

1. How can I support my child to **learn** their tables?

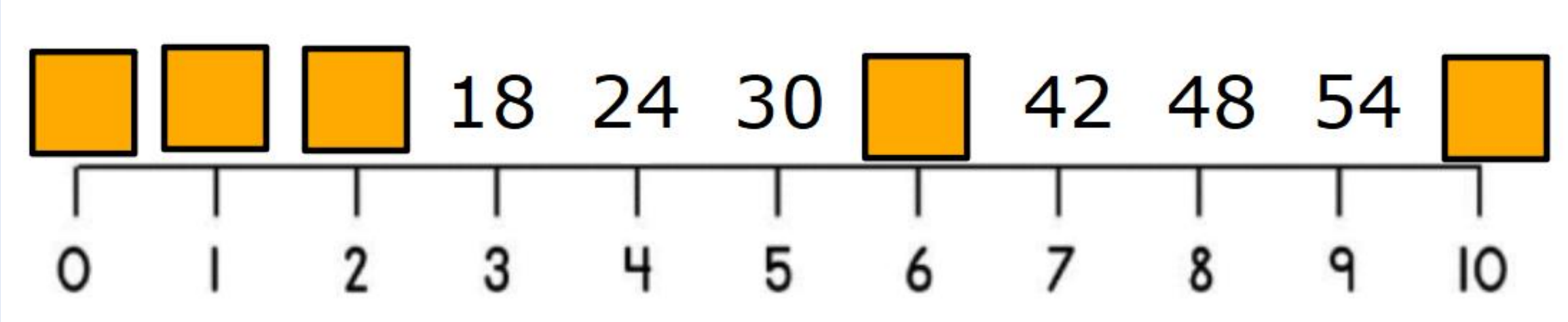


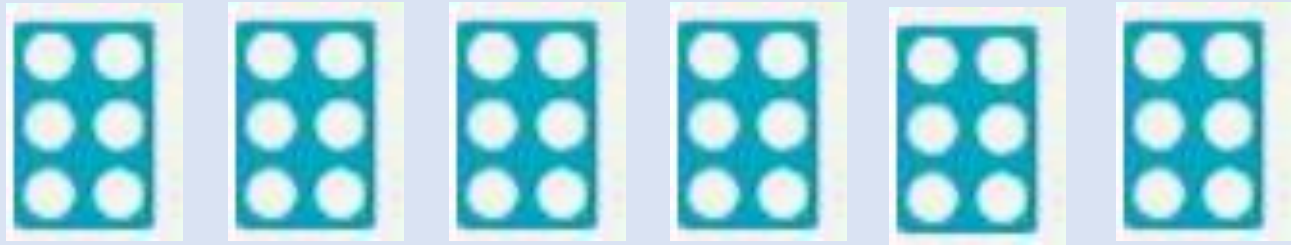
Which ones do we know that we can cover up?

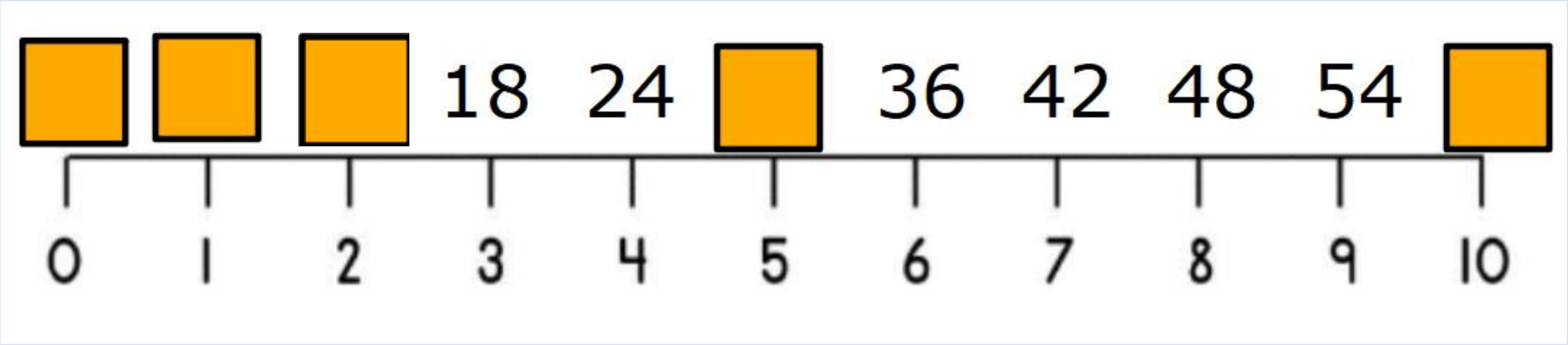
0, 1, 2, 10, 5



If I know 1x 6 is 6, 2 x 6 is DOUBLE 6!


18
24
30
42
48
54
0
1
2
3
4
5
6
7
8
9
10

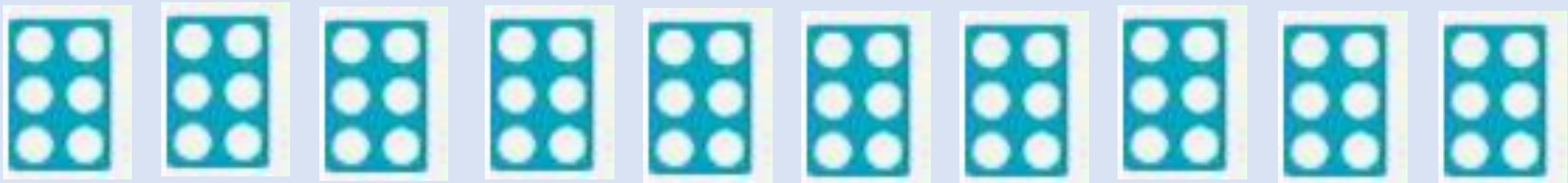


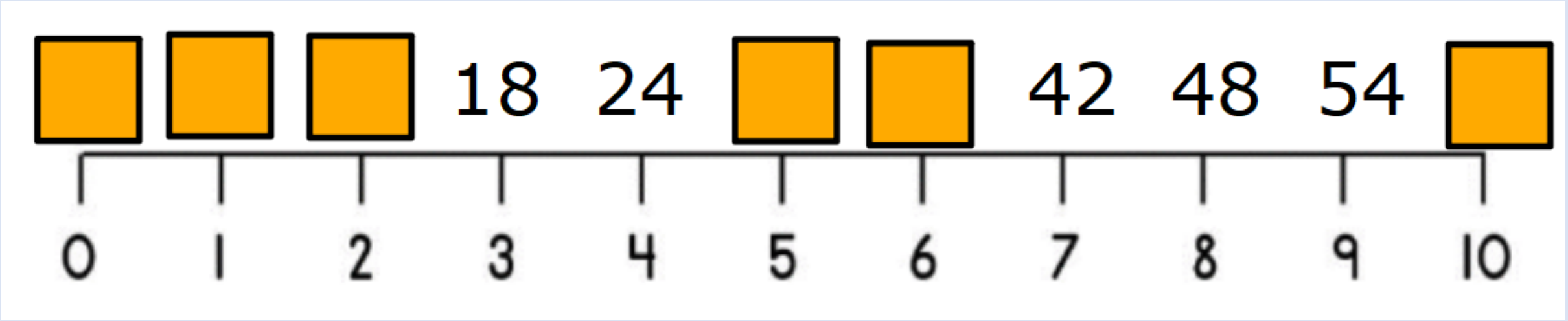


If I know 5 x 6 = 30, what is 6 x 6?

It’s just another group of 6!

Let’s count again!





If I know 10 x 6 = 60, 9 x 6 is one group of 6 less!

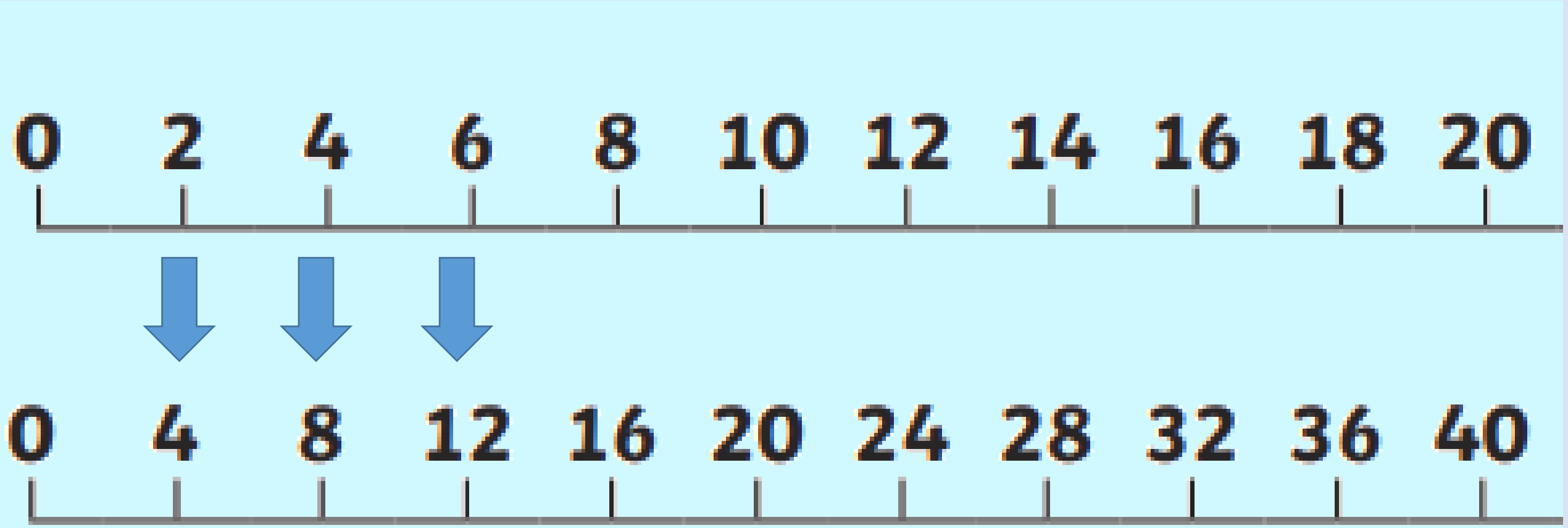
Let’s count again!

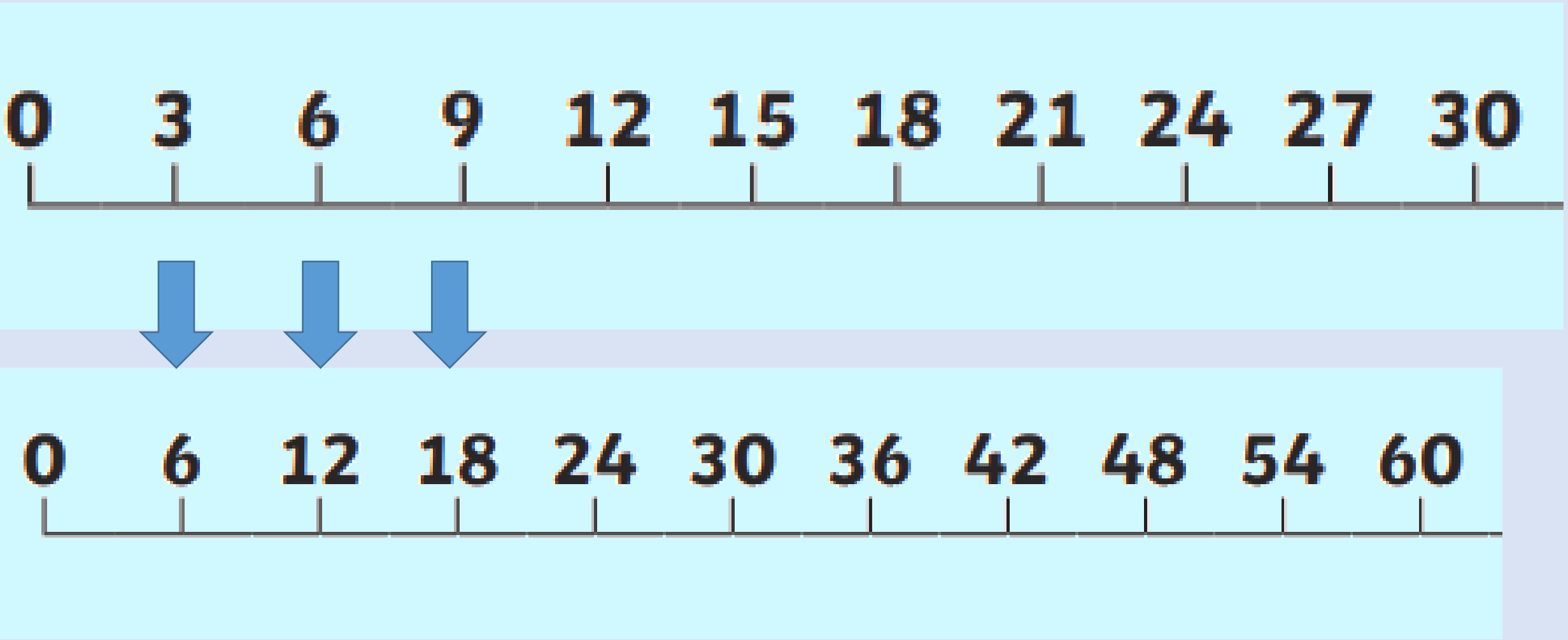
We want to be able to work out new facts using existing ones, NOT starting at 1 x 6 every time.

So…how can we work out 7 x 6? Or 4 x 6?

2. How can I support my child to **learn** their tables?

Relationships between numbers



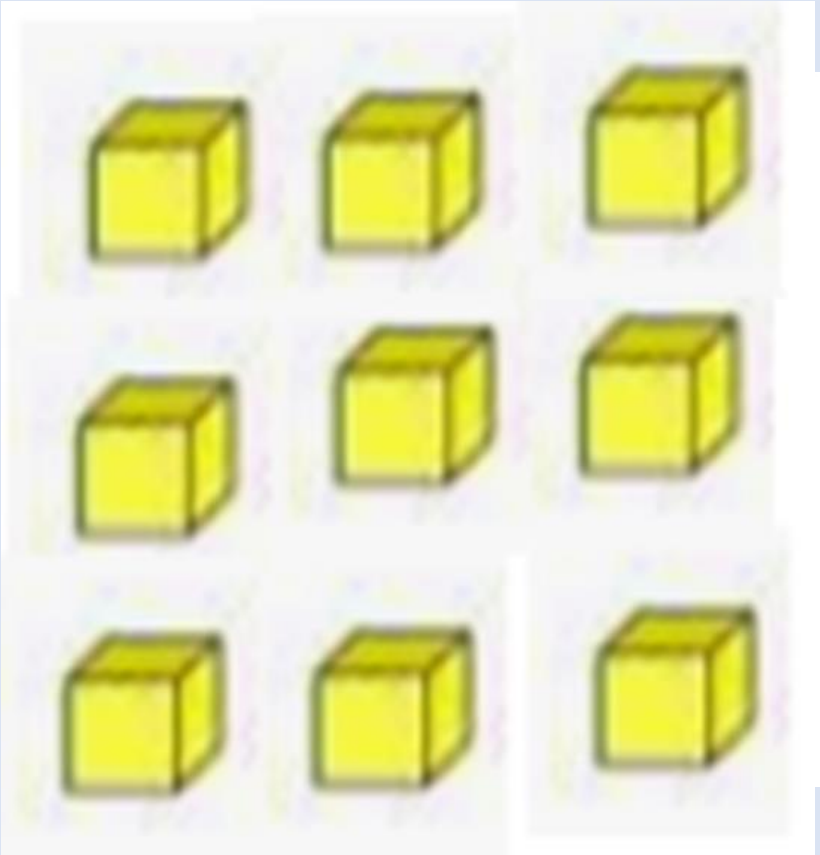

0 3 6 9 12 15 18 21 24 27 30
0 6 12 18 24 30 36 42 48 54 60

3. How can I support my child to **learn** their tables?

Pattern spotting and magic fingers!

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

As we add another group of 9, the tens go up by 1 and the units go down by 1.
Why?



1 x 9 = 09

2 x 9 =18

3 x 9 = 27

4 x 9 = 36

5 x 9 = 45

6 x 9 = 54

7 x 9 = 63

8 x 9 = 72

9 x 9 = 81

10 x 9 = 90

As well as this, notice how the number we are multiplying 9 by is 1 more than the number in the tens column…

And how digits in the product add up to 9…

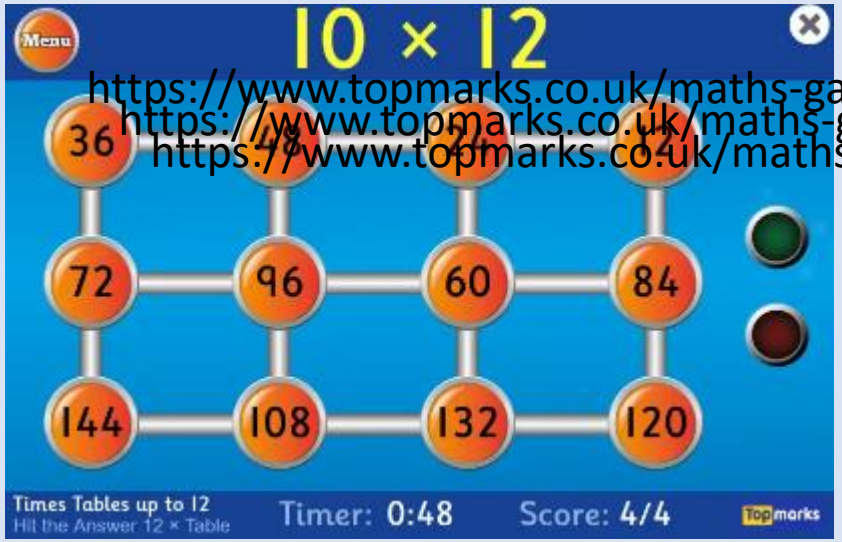
1 + 8 = 9

2 + 7 = 9

3 + 6 = 9…

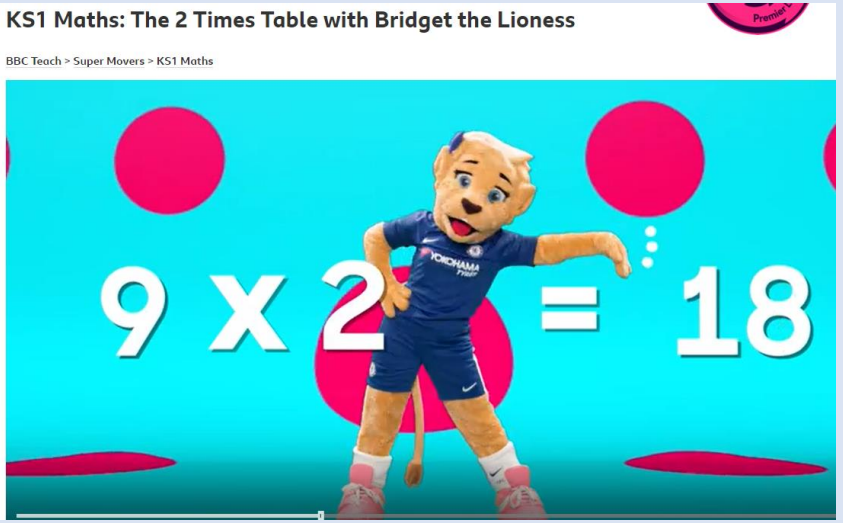
So with a quick bit of adding, we can find the answer to ANY 9 x table!

How can I support my child to **practise** their tables?



https://www.topmarks.co.uk/maths-games/hit-the-button
https://www.topmarks.co.uk/maths-games/hit-the-button
https://www.topmarks.co.uk/maths-games/hit-the-button

X	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												



Spiral multiplication

Spiral Multiplication

1. Use the deck of cards to make a spiral game board starting from the center.
2. Place your game pieces at the start.
3. Player 1 rolls the die.
4. Player 1 multiplies the number on the die by the card the game piece is on.
5. If they are correct, they move the number of spaces the die shows. If they are incorrect, they do not get to move.
6. Take turns and repeat until someone reaches the end.

Top Tips!

1. Practise daily- 5 minutes a day is better than half an hour once a week
2. Vary how you practise: make it fun
3. Use what you know: don’t start from 0!
4. Use tricks to help you: the finger calculator, pattern spotting, silly rhymes/songs etc