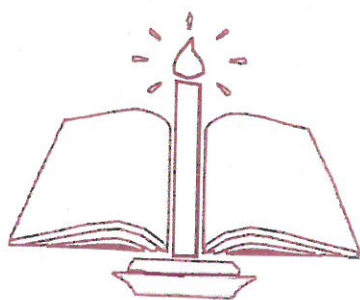


Helping at Home with Times Tables

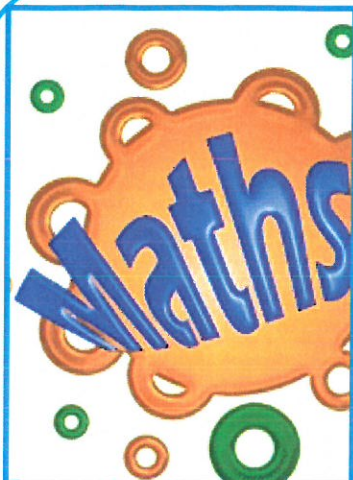


HELPING AT HOME WITH TIMES TABLES

Choose a times table and
practice it for a few minutes
every day

Use the ideas and ways to
remember in this leaflet

Find a method that suits you

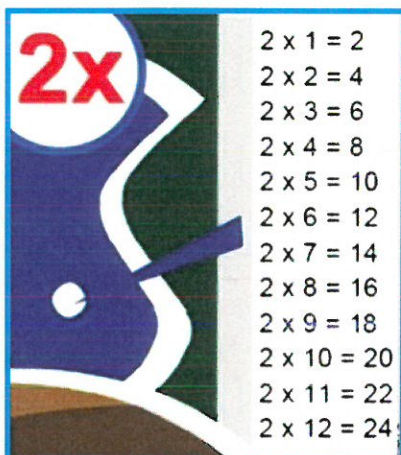
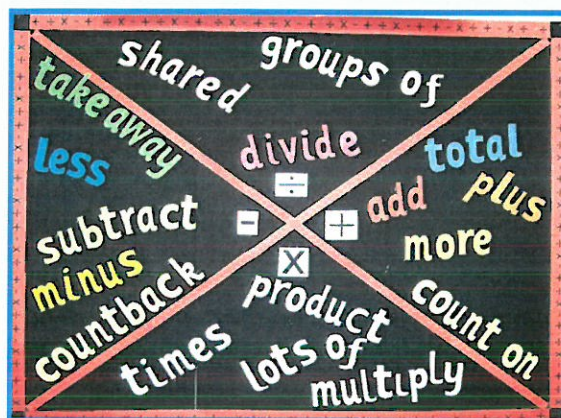


Times table words

- **Factors:** One number is a factor of another number if it divides, or 'goes into' it exactly, with no remainders. e.g. 5 is a factor of 20
- **Groups of:** 3 groups of 2 are 6; $3 \times 2 = 6$
- **Lots of:** 2 lots of 5 are 10; $2 \times 5 = 10$
- **Sets of:** 3 sets of 3 are 9, $3 \times 3 = 9$

More Times table words

- **Times:** 4 times 4 = 16
 $4 \times 4 = 16$
- **Multiply:**
3 multiplied by 4 = 12
 $3 \times 4 = 12$
- **Product:**
The product of 4 and 4 is 16
 $4 \times 4 = 16$



2 times tables tips

- All numbers in the 2 times table are **even** - they end with 0, 2, 4, 6, or 8
- Multiplying a number by 2 is the same as **doubling** it. E.g. double 4 is the same as 4×2 , which equals 8
- Another way is to add the number to itself e.g. $9 + 9 = 18$ and $9 \times 2 = 18$

3 times tables tips

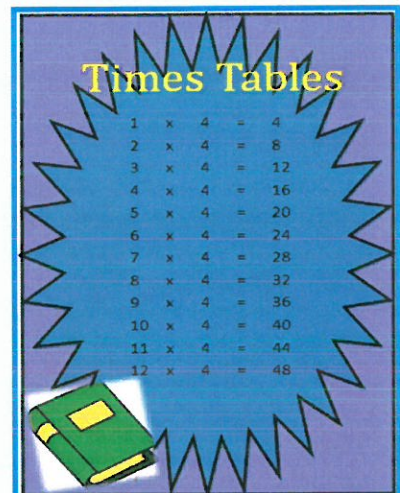
3 TIMES TABLE

3	x	1	=	3
3	x	2	=	6
3	x	3	=	9
3	x	4	=	12
3	x	5	=	15
3	x	6	=	18
3	x	7	=	21
3	x	8	=	24
3	x	9	=	27
3	x	10	=	30
3	x	11	=	33
3	x	12	=	36

- To find out if a number is in the 3 times table, add up the digits of the number and if they **add up to 3, 6, or 9**, then it's in the 3 times table.
- e.g. **15**: The digits are 1 and 5. Add those together and you get 6. **1 + 5 = 6**. So 15 is in the 3 times table.
- It even works for big numbers e.g. 1359
 $1 + 3 + 5 + 9 = 18 \rightarrow 1 + 8 = 9$
 $1 + 8 = 9$ so 1359 is in the 3 times table.

4 times tables tips

- All the numbers in the 4 times table are **even** - they end with 0, 2, 4, 6 or 8
- You can work out a 4 times sum by doubling the number twice.
 7×4 is the same as $7 \times 2 = 14$, then $14 \times 2 = 28$.



1	x	4	=	4
2	x	4	=	8
3	x	4	=	12
4	x	4	=	16
5	x	4	=	20
6	x	4	=	24
7	x	4	=	28
8	x	4	=	32
9	x	4	=	36
10	x	4	=	40
11	x	4	=	44
12	x	4	=	48

Times Tables!!!

1	x	5	=	5
2	x	5	=	10
3	x	5	=	15
4	x	5	=	20
5	x	5	=	25
6	x	5	=	30
7	x	5	=	35
8	x	5	=	40
9	x	5	=	45
10	x	5	=	50
11	x	5	=	55
12	x	5	=	60

5 times table tips

- All multiples of 5 end in a 5 or a 0.
- 6520 is in the **5** times table because it ends in a **0**.
- 34552 is not because it ends in a **2**.

6 TIMES TABLE

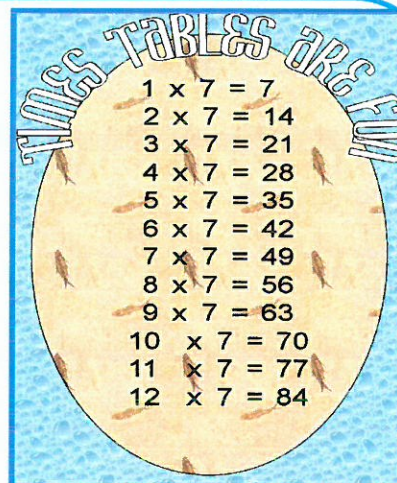
6	x	1	=	6
6	x	2	=	12
6	x	3	=	18
6	x	4	=	24
6	x	5	=	30
6	x	6	=	36
6	x	7	=	42
6	x	8	=	48
6	x	9	=	54
6	x	10	=	60
6	x	11	=	66
6	x	12	=	72

6 times table tips

- All the numbers in the 6 times table are **even** - they end with 0, 2, 4, 6 or 8.
- They are all a **multiple of 3**, they can be divided by 3.
- If you multiply 6 by an even number, they both end in the same digit. Example: $6 \times 2 = 12$, $6 \times 4 = 24$, $6 \times 6 = 36$, etc.

7 times table tips

- Try reversing the sum if you are having problems. 7×5 is the same as 5×7 which is 35.
- $56 = 7 \times 8$.
Just remember 5,6,7,8.



1	x	7	=	7
2	x	7	=	14
3	x	7	=	21
4	x	7	=	28
5	x	7	=	35
6	x	7	=	42
7	x	7	=	49
8	x	7	=	56
9	x	7	=	63
10	x	7	=	70
11	x	7	=	77
12	x	7	=	84

8 TIMES TABLE

8	x	1	=	8
8	x	2	=	16
8	x	3	=	24
8	x	4	=	32
8	x	5	=	40
8	x	6	=	48
8	x	7	=	56
8	x	8	=	64
8	x	9	=	72
8	x	10	=	80
8	x	11	=	88
8	x	12	=	96

8 times table tips

- The answers in the 8 times table are always **even**. That means they can be divided by 2
- The answers have a pattern - they go down in 2s. E.g. 8, 16, 24, 32, 40

9 times table tips

- The answers are 10x the number minus the number. E.g. $9 \times 6 = 10 \times 6 = 60$ and $60 - 6 = 54$
- The last number of the answer always goes down by one. E.g. 9, 18, 27

Times Tables are FUN

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	$\times 9 = 90$
11	$\times 9 = 99$
12	$\times 9 = 108$

$$9 \times 1 = 09$$

$$9 \times 2 = 18$$

$$9 \times 3 = 27$$

$$9 \times 4 = 36$$

$$9 \times 5 = 45$$

$$9 \times 6 = 54$$

$$9 \times 7 = 63$$

$$9 \times 8 = 72$$

$$9 \times 9 = 81$$

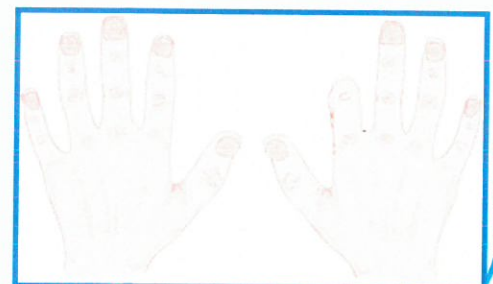
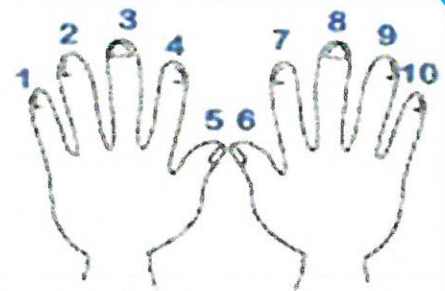
$$9 \times 10 = 90$$

9 times table pattern method

- Remember to start with "0" and then write the digits 1 to 9 in descending order. Then start with 0 again and write the digits 1 to 9 in ascending order next to them - you now have the answers to the 9X table up to 10.
- To check the answers, add the two digits for each answer together - they all add up to 9
e.g. 54: $5 + 4 = 9$ 63: $6 + 3 = 9$

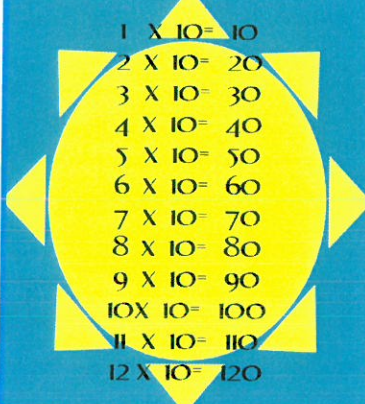
9 times table finger method

- Put both hands out with fingers outstretched. Your fingers represent the numbers 1 to 10.
- Counting from the left, put down the finger that corresponds to the multiplier. To the left of the lowered finger is the tens column; to the right is the ones column.
- Try it with 9×7 . Hold out all 10 fingers, and lower finger number 7. There are 6 fingers to the left (tens) and 3 fingers on the right (ones). So the answer is 63.
- Try it again with 9×5 . Hold out all 10 fingers and lower finger number 5. There are 4 fingers to the left and 5 on the right. So the answer is 45.



10 times table tips

- All ten times tables end in 0
e.g. 10, 20, 30



1	$\times 10 =$	10
2	$\times 10 =$	20
3	$\times 10 =$	30
4	$\times 10 =$	40
5	$\times 10 =$	50
6	$\times 10 =$	60
7	$\times 10 =$	70
8	$\times 10 =$	80
9	$\times 10 =$	90
10	$\times 10 =$	100
11	$\times 10 =$	110
12	$\times 10 =$	120

11 and 12 times table tips

11 times table tips

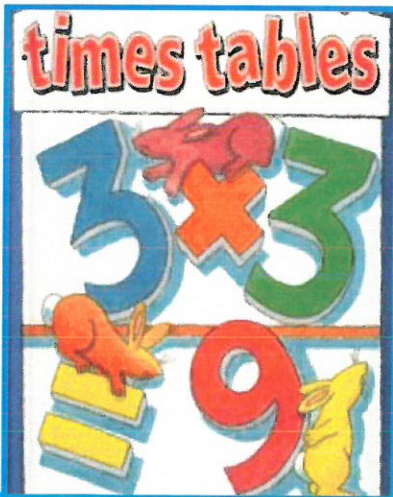
- up to 9×11 : just repeat the digit
- Example: $4 \times 11 = 44$



12 times table tips

- An easy way to remember the 12 times table is that every answer is
- **10 x plus 2x** e.g. $4 \times 12 = 4 \times 10 = 40$ and $4 \times 2 = 8$
- However, there is no longer any real need to learn the 11 or 12 times tables now that we use metric and decimal systems!

Multiplication methods



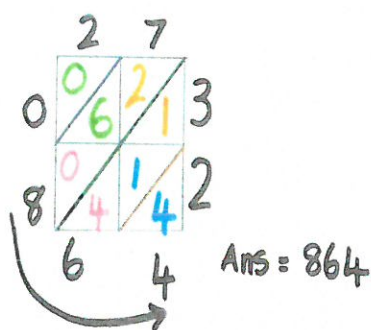
- **Reverse the question:** If you don't know 8×4 turn it around into 4×8 .
- **Use the facts you know well:** If you need to work out 12×3 , start with $10 \times 3 = 30$ and add 2 more 3s to give 36.
- **Doubling:** If you know that $4 \times 4 = 16$, then you can work out 8×4 by doubling 16, which gives 32.

Chinese (Lattice) Multiplication

- This method separates out the “multiply” process from the “add” process which with traditional multiplication occurs together or alternatively.
- For 2 digit numbers x 2 digit numbers there is also no need to remember extra zero's on the second line (or to remember that some of the numbers are tens not units).



$$27 \times 32$$



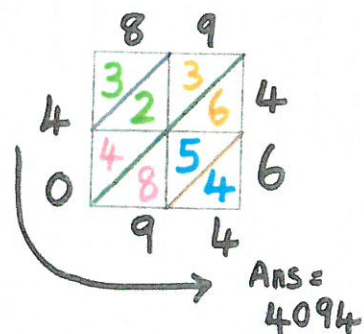
Example 1

- It doesn't matter which way round the numbers go.
- Units go in the bottom half of the square, tens in the top.
- You add by “sliding down” the diagonals.
- The answer is read going anti-clockwise

Example 2

- If there is a “carry” it is put in the next “slide”.

$$89 \times 46$$





Why is Chinese/lattice multiplication easier?

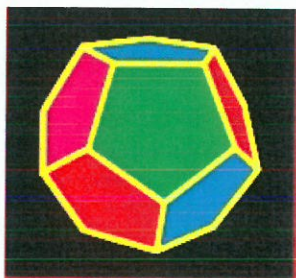
- You don't have to remember the "8" in 87 means "80"
- You don't have to multiply, then add, then multiply. Switching from "multiply" mode to "add" mode is difficult. You do all the multiplies first and then do all the adds.

and...

- This method is adaptable to multiplying any size numbers and to multiplying decimal numbers.
- The decimal point "rolls out" automatically (if there is one)



Coolmath4kids



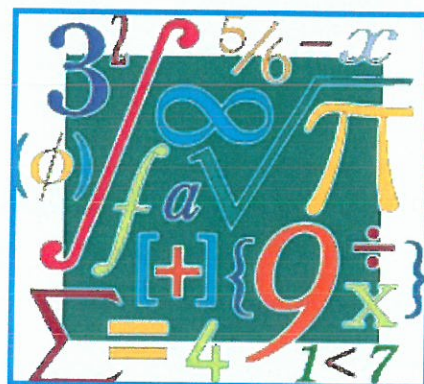
Useful website

- This website has a step by step guide to Chinese (lattice) multiplication:
- <http://www.coolmath4kids.com/times-tables/times-tables-lesson-lattice-multiplication-1.html>

Websites

www.coolmath4kids.com/times-tables

www.bbc.co.uk/skillswise



Games



1. Use a deck of playing cards for a game of **Multiplication War**.
2. At first you may need the grid overleaf to help you.
3. Flip over the cards as if you are playing Snap.
4. The first one to say the fact based on the cards turned over (a four and a five = Say "20") gets the cards.

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

Multiplication grid

- It's alright to use a multiplication grid and it can help you identify patterns.
- Look carefully at all of the patterns, especially when the numbers correspond with the facts e.g. 7×8 and $8 \times 7 = 56$

Multiplication Grid

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

N.B: There is no longer any need to learn the 11 or 12 times tables now that we use metric and decimal systems!