Sense of Number
Visual Calculation Policy

Expanded Edition for
Toner Avenue Primary School
March 2015

Graphic Design by Dave Godfrey
Compiled by the Sense of Number Maths Team

For sole use within Toner Avenue Primary School.

'A picture is worth 1000 words!'
www.senseofnumber.co.uk

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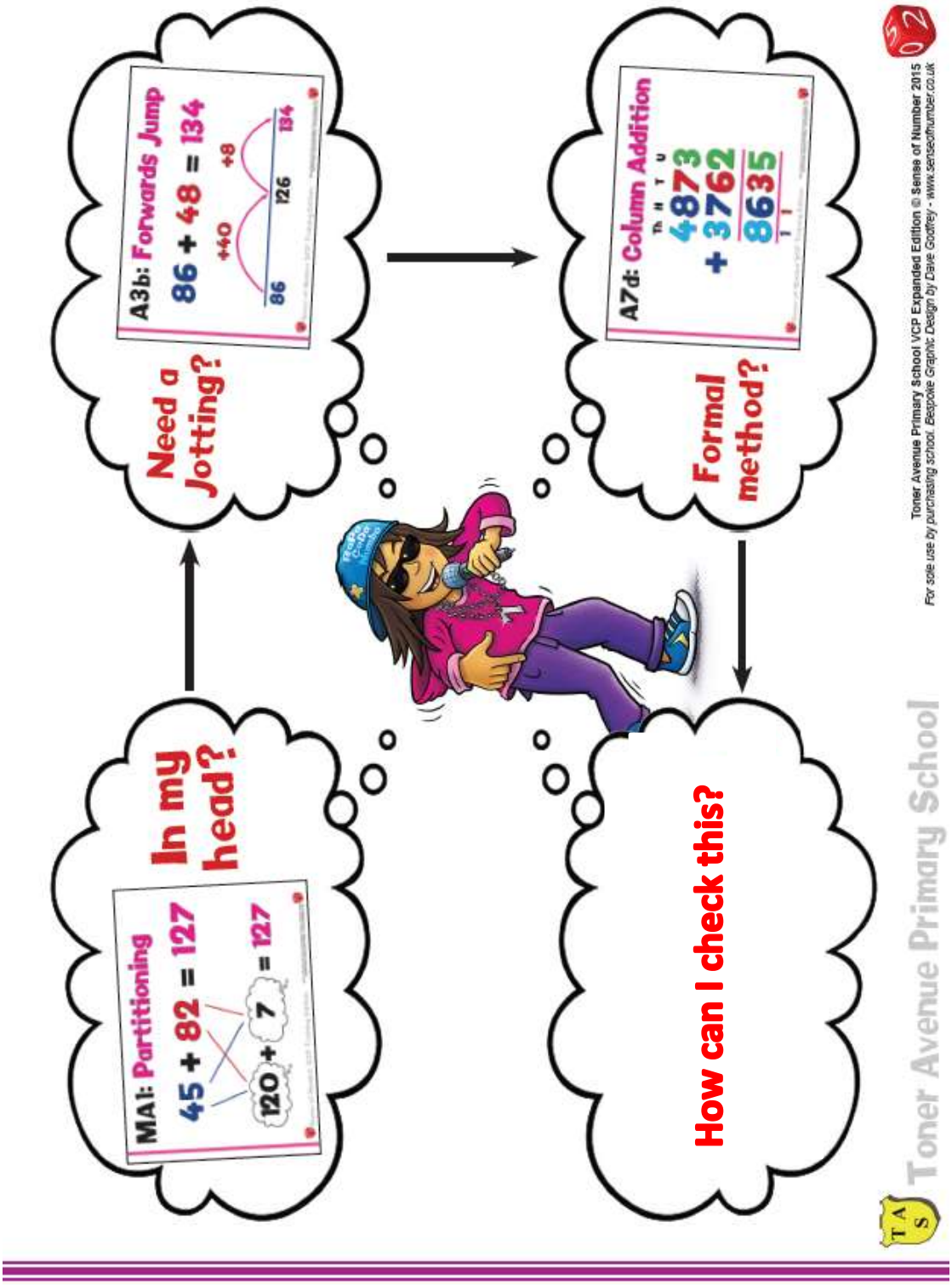
We want our pupils to make decisions. We help our pupils make choices to be fast and efficient at maths.



This is how we can ask and answer our questions.

KC1: Key Concepts!

Addition

+

8 + 2 = 10

"What is 8 add 2?"
Answer: 10

Subtraction

−

8 - 2 = 6

"What is 8 subtract 2?"
Answer: 6
"The difference between 8 and 2 is 6"

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KC2: Key Concepts!

Multiplication

x

8 x 2 = 16

"8 multiplied by 2" means "8, 2 times" or "2 groups of 8"

Division

÷

8 ÷ 2 = 4

"8 divided by 2" means "How many groups of 2 are there in 8?" Answer: 4

("8 shared into 2 sets is 4")

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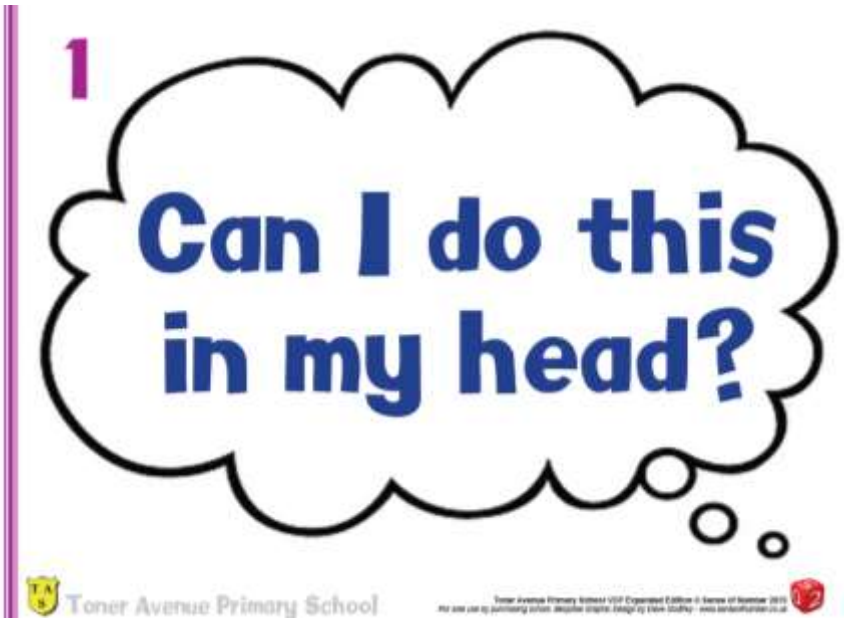
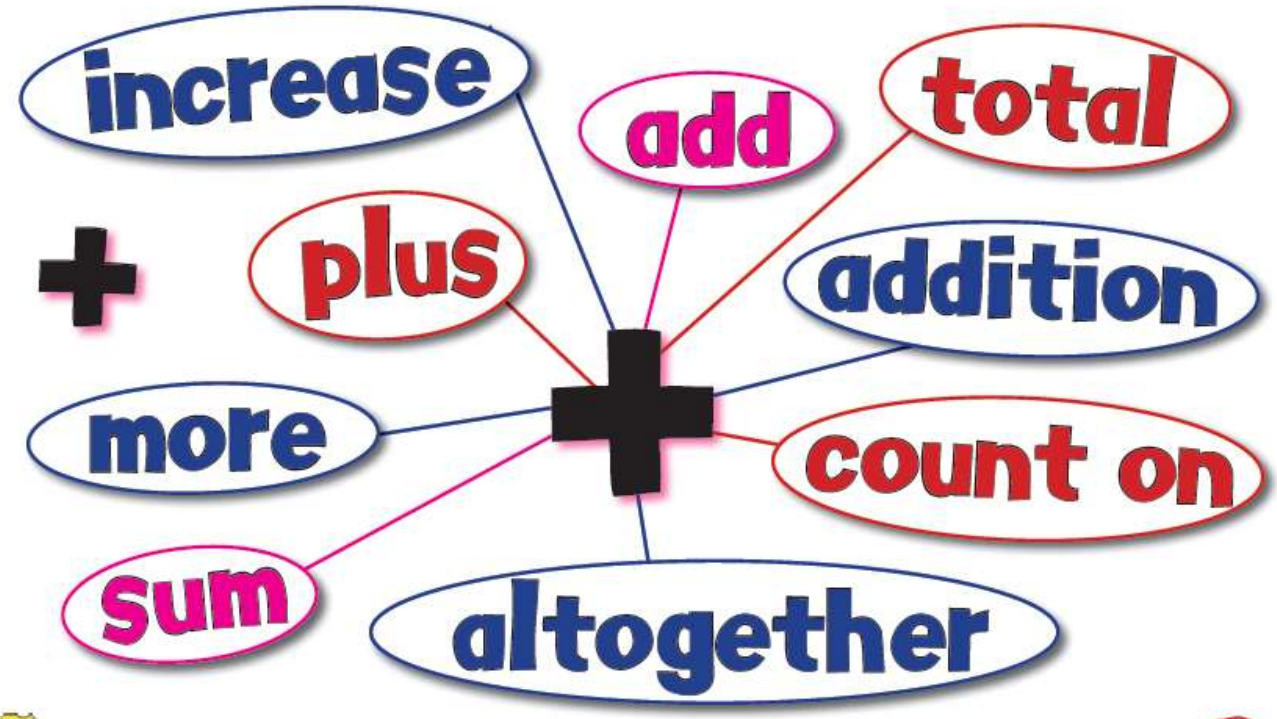
Before we answer questions, this is what we consider.



Addition Vocabulary



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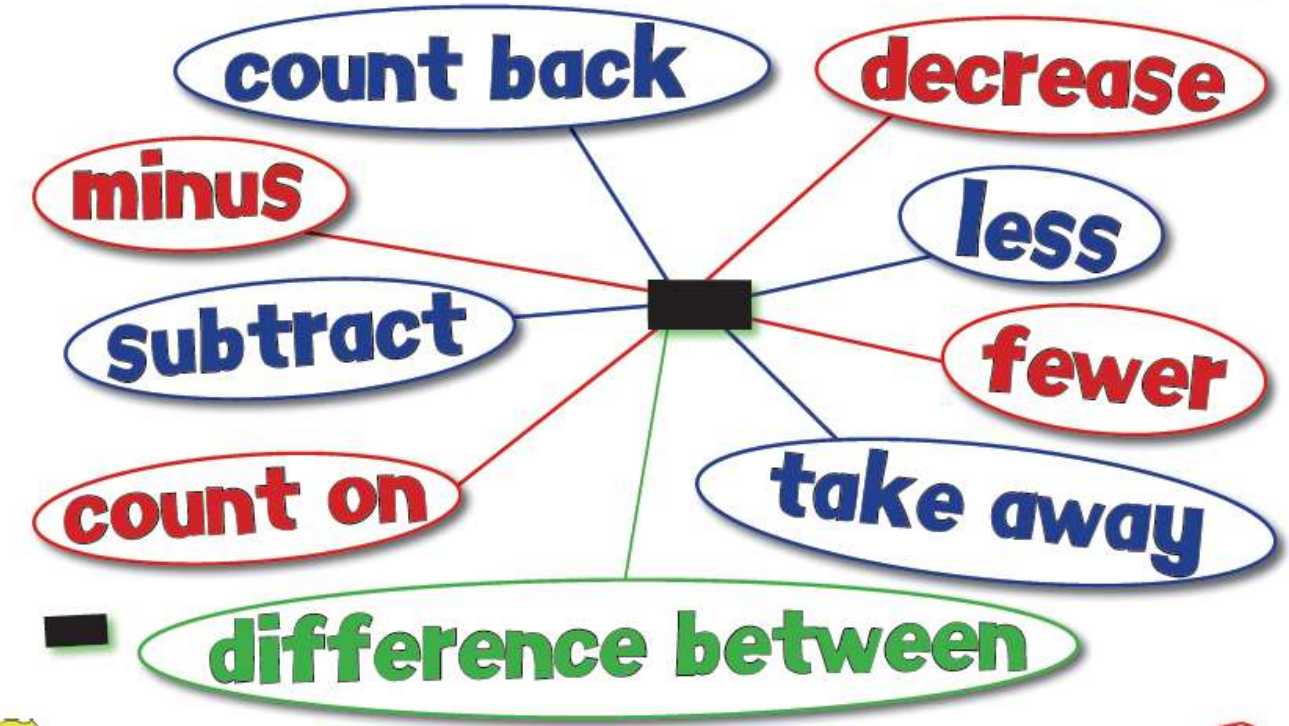
Subtraction Vocabulary



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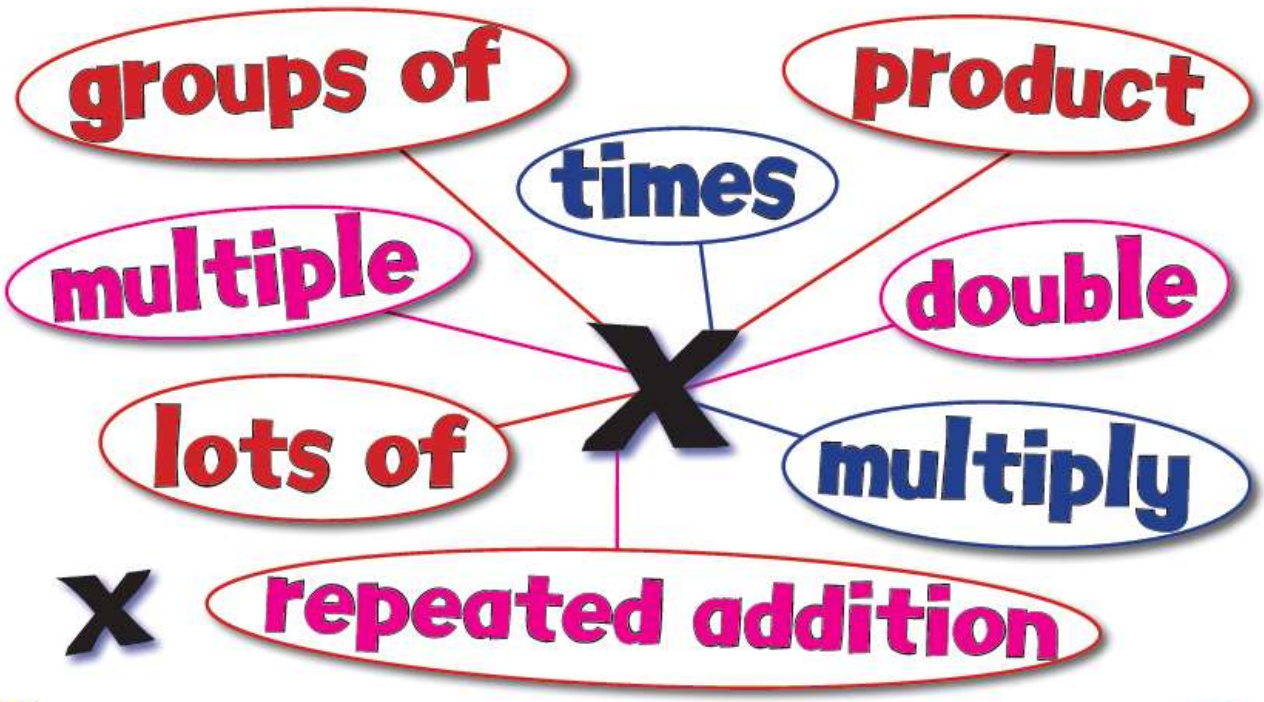
Multiplication Vocabulary



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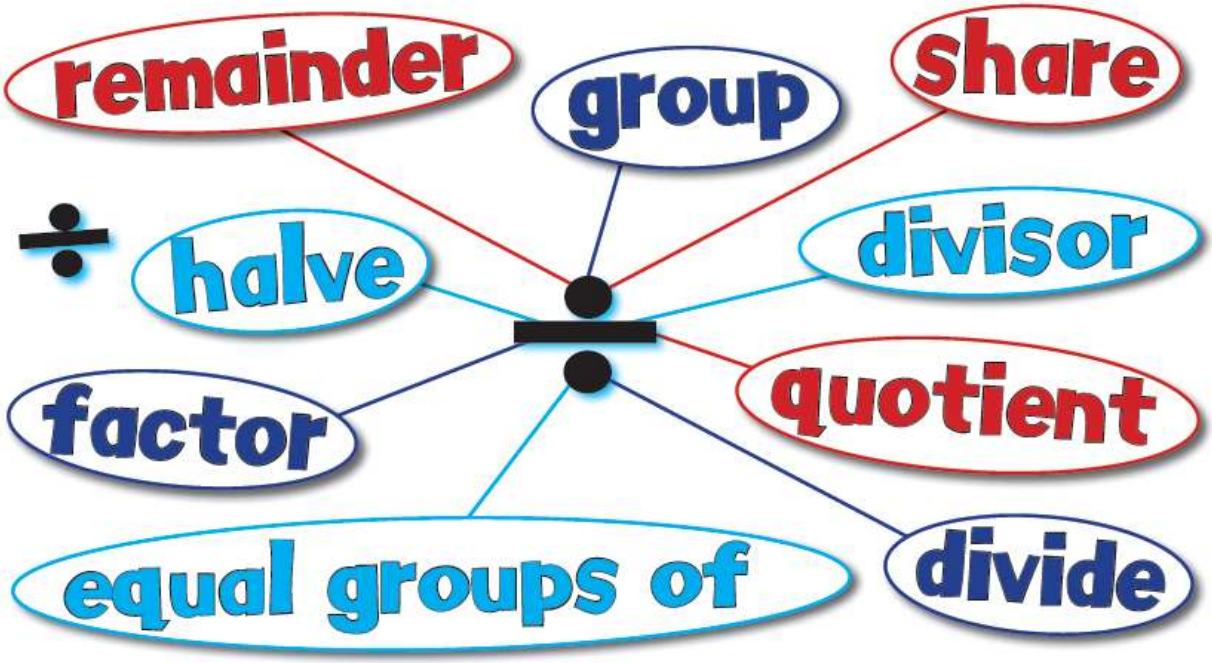
Division Vocabulary



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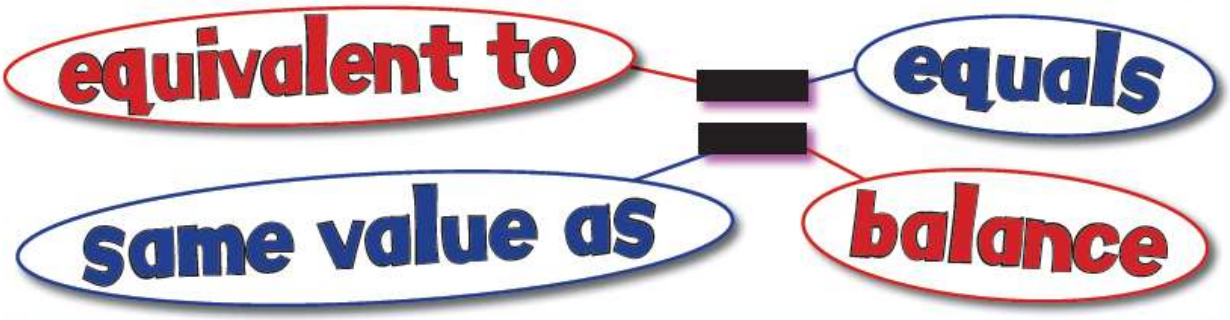
Calculation Vocabulary



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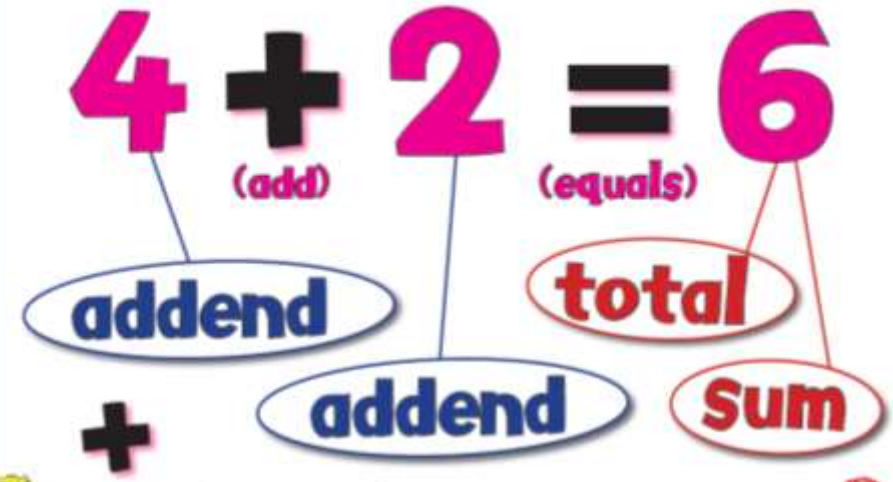
Addition Calculation



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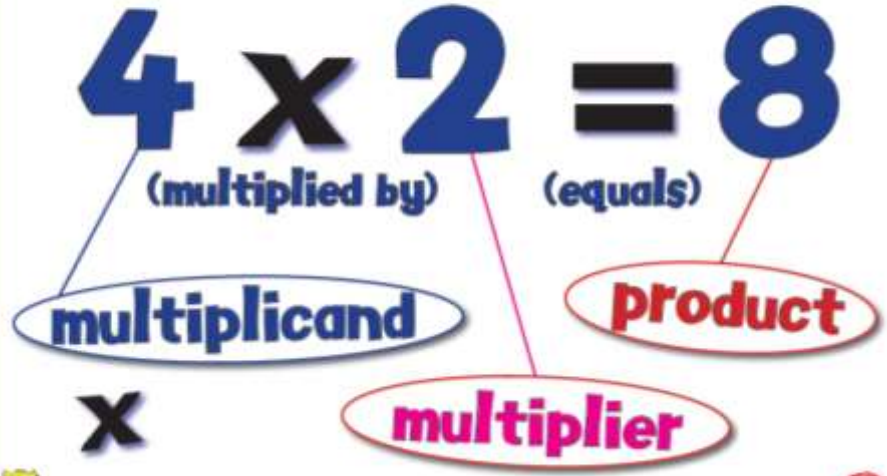
Multiplication Calculation



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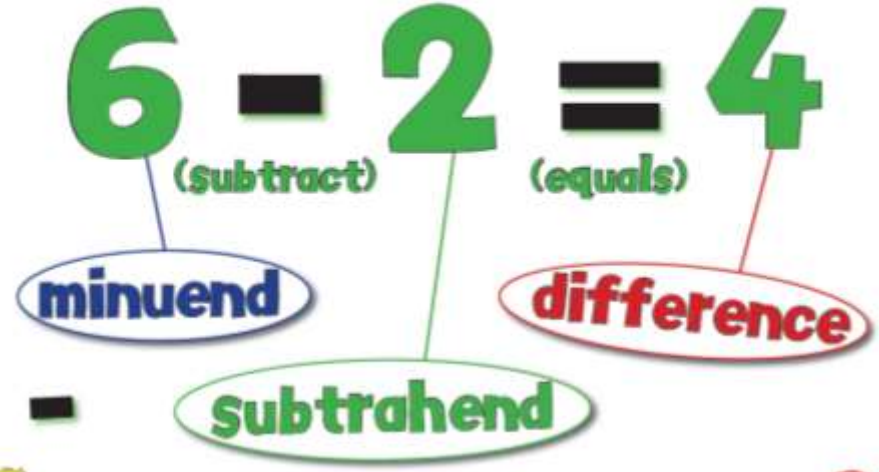
Subtraction Calculation



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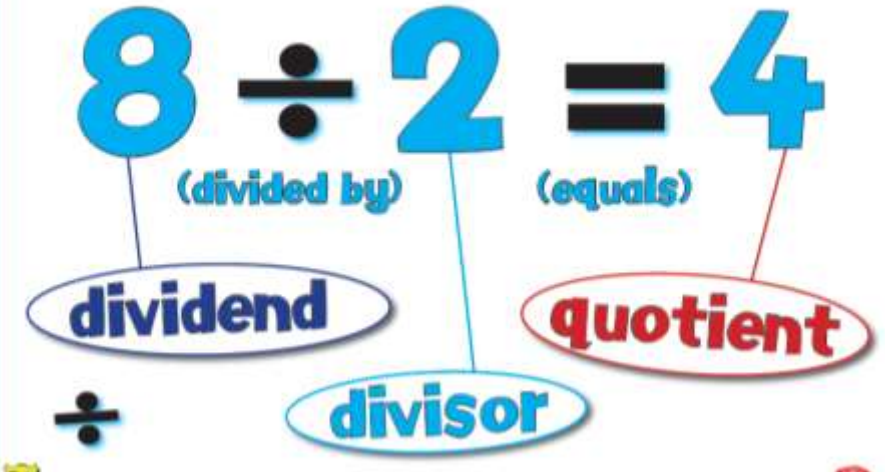
Division Calculation



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Counting

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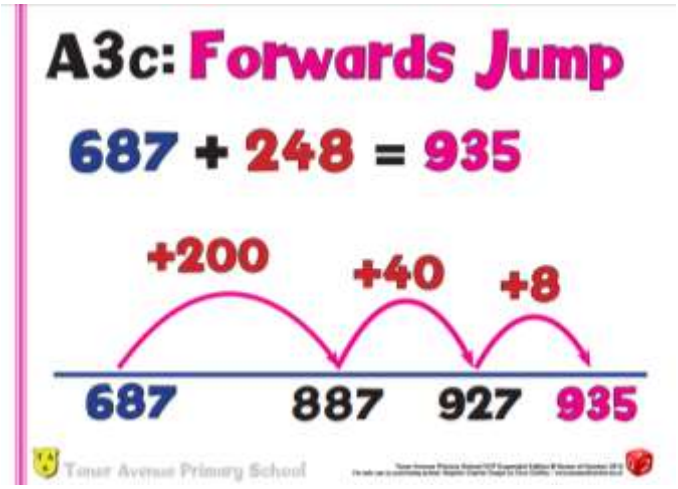
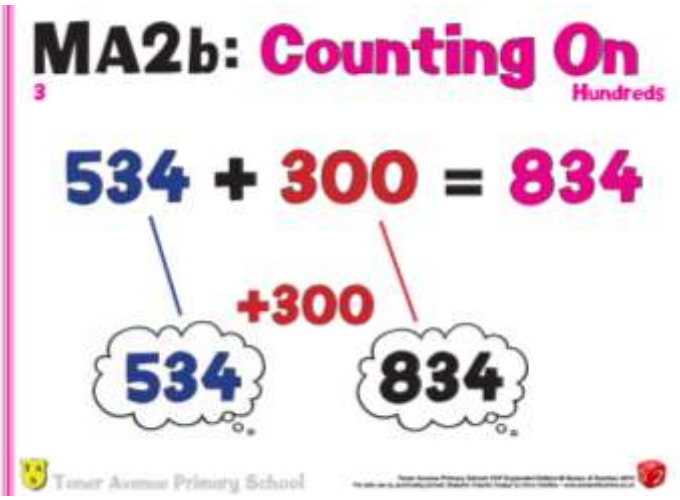
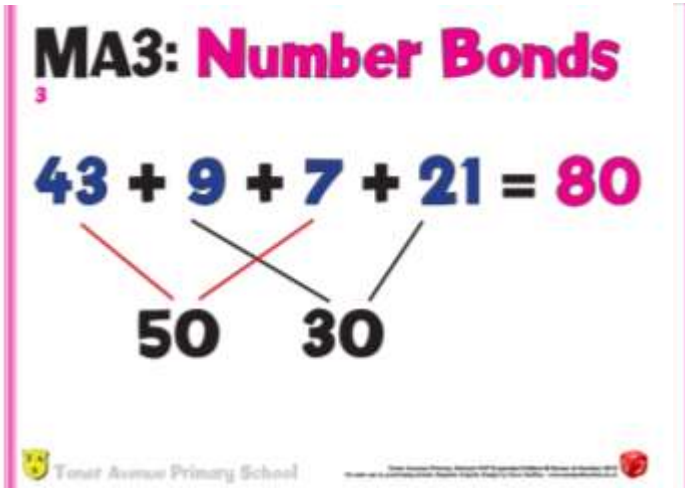
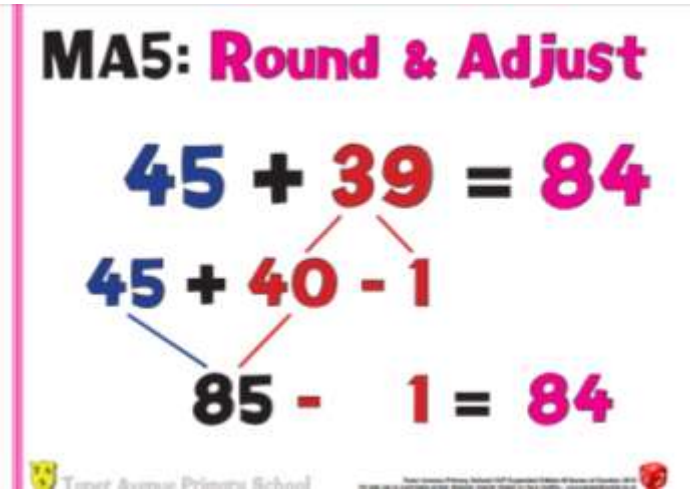
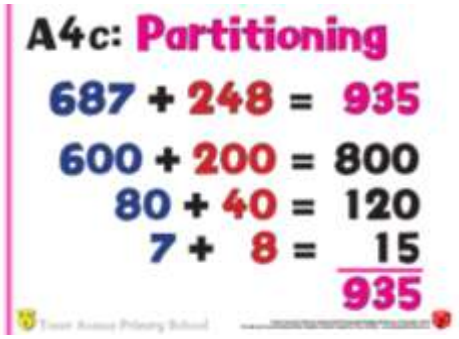
Year 3 – Counting and Equipment

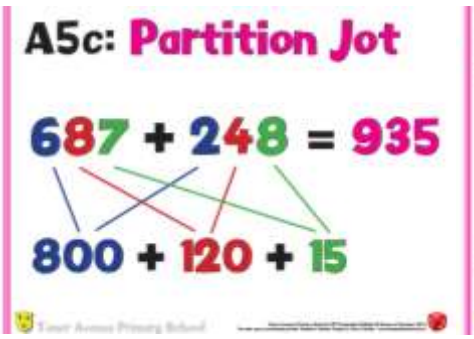


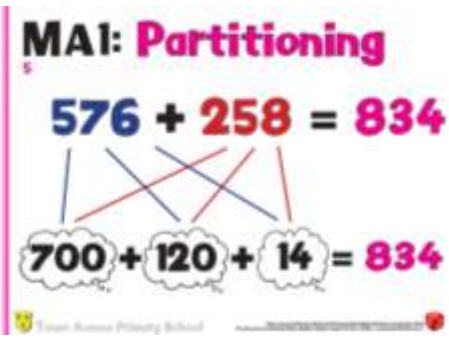












Addition

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(A7: Column Addition)

Additional:b

H	T	U
	8	6
+	4	8
1	3	4
	1	1

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A7: Column Addition

H	T	U
6	8	7
+	2	4	8
9	3	5
	1	1

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Subtraction

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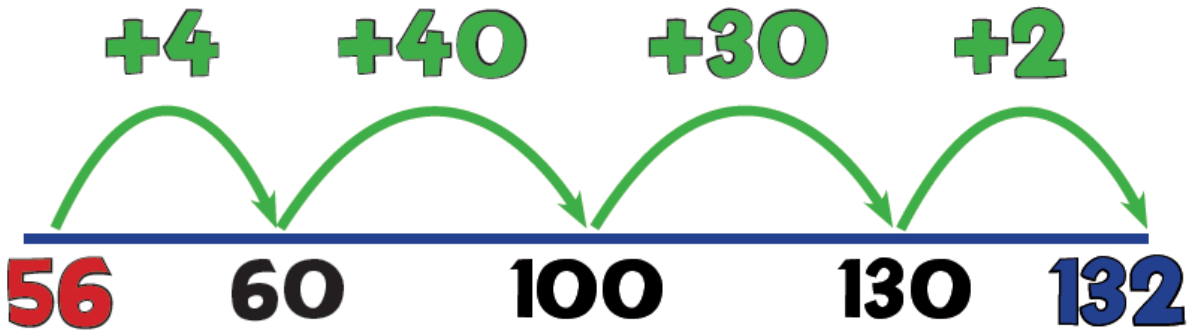
S8b: Quad Jump!



132 - 56 = 76

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S11: Column Subtraction

H	T	U
6	11	1
7	~~2~~	3
- 3	5	6
3	6	7

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Multiplication

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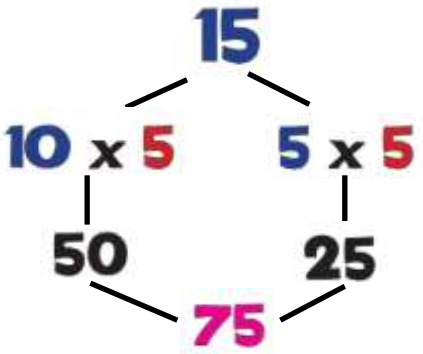
Year 3 - Multiplication

M4a: Partitioning

15 x 5 = 75



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(M6: Expanded Column)

Additional a

100	10	1	
	4	3	
x		6	
	1	8	(6 x 3)
2	4	0	(6 x 40)
2	5	8	

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MM3: Partitioning

15 x 5 = 75

50 (10 x 5) + 25 (5 x 5) = 75

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(M7: Column Multiplication)

Additional:a

100	10	1
	4	3
x		6
2	5	8
	1	

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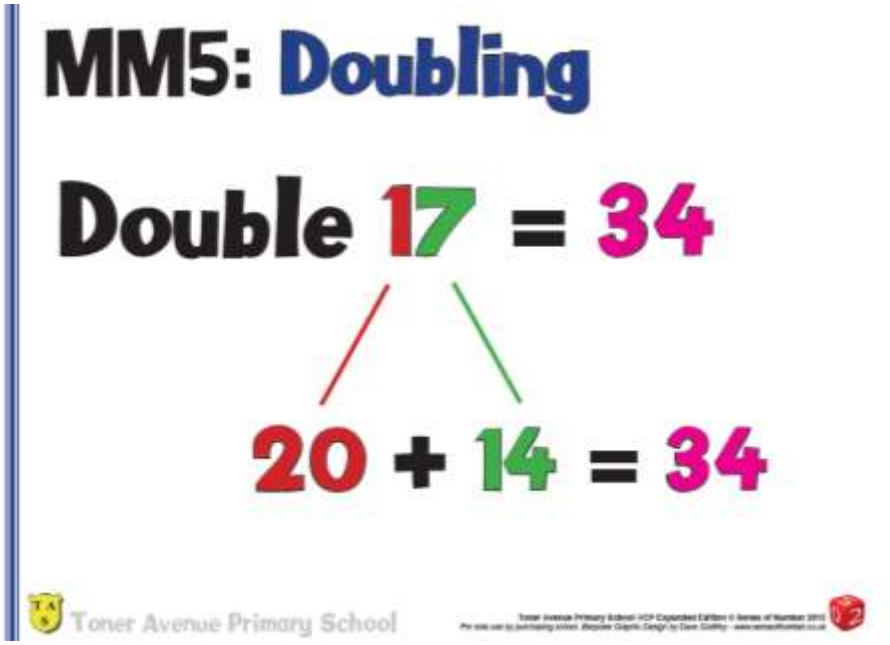
MM5: Doubling
Double 17 = 34
20 + 14 = 34
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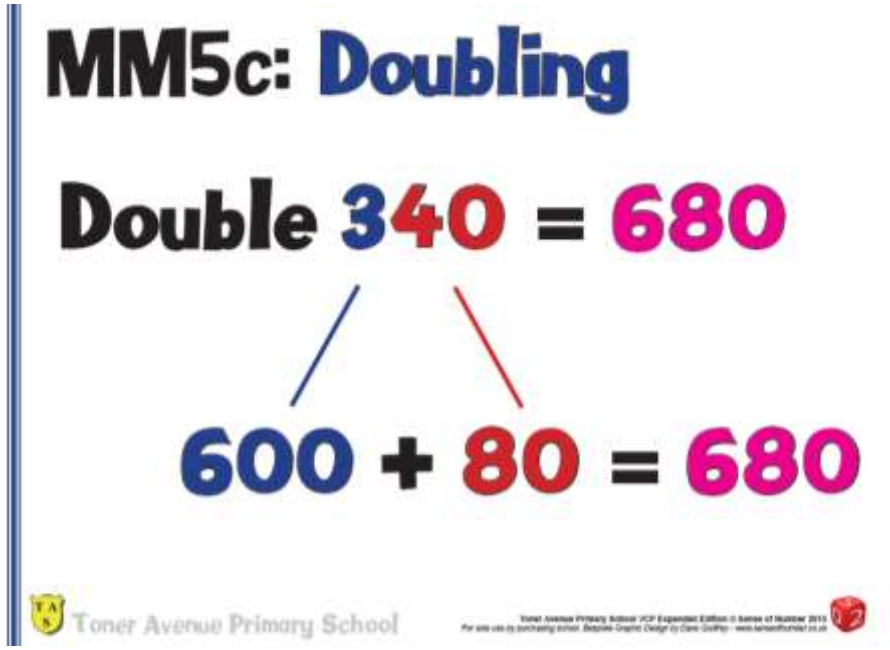
MM5c: Doubling
Double 340 = 680
600 + 80 = 680
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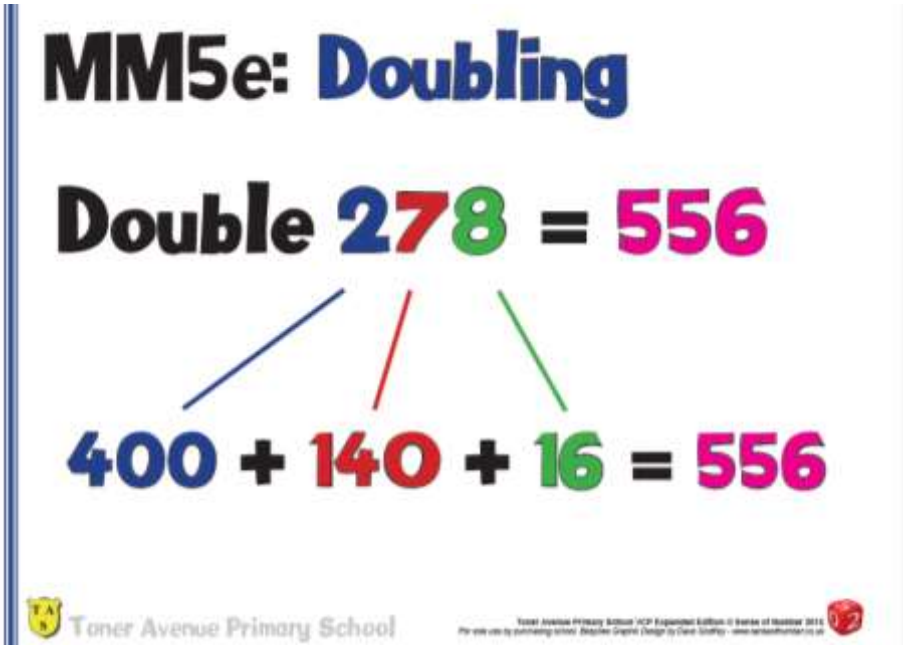
MM5e: Doubling
Double 278 = 556
400 + 140 + 16 = 556
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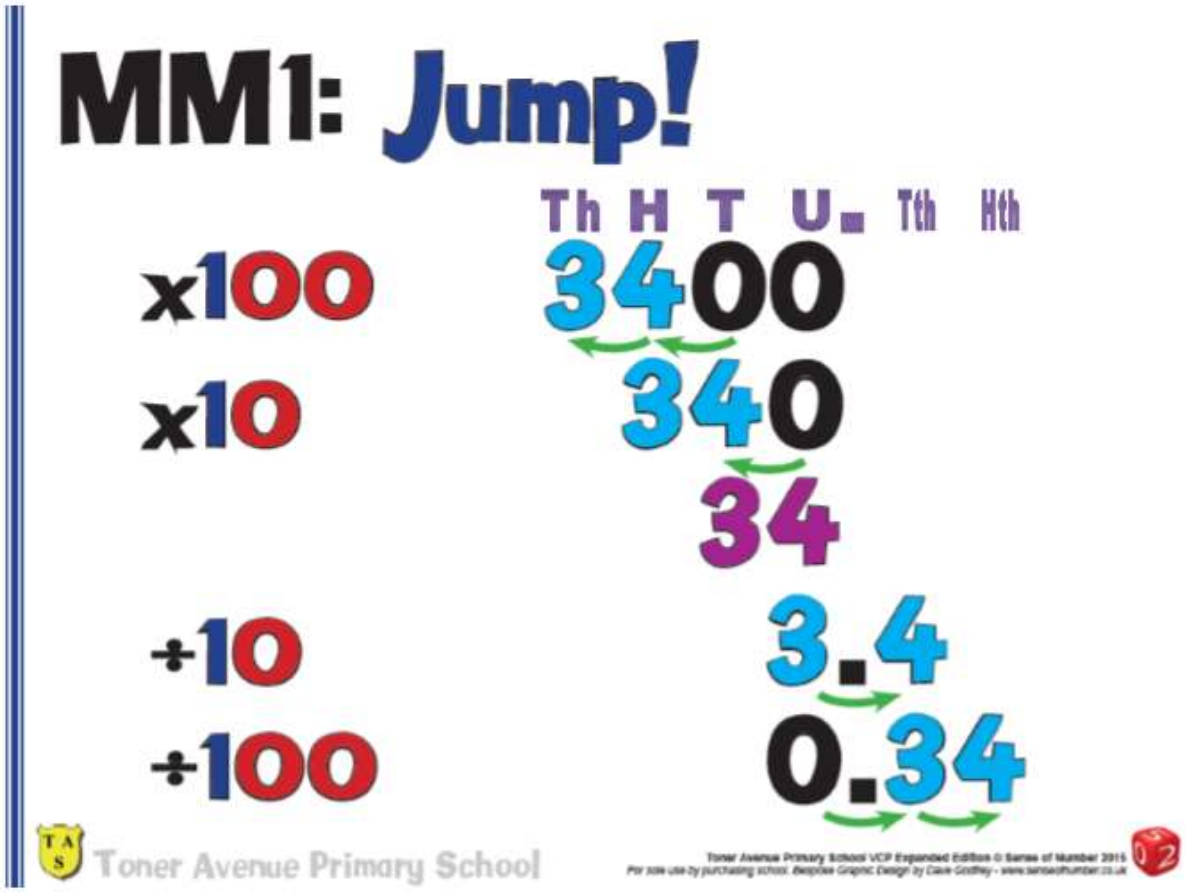
MM1: Jump!
Th H T U. Tth Hth
x100
3400
x10
340
34
÷10
3.4
÷100
0.34
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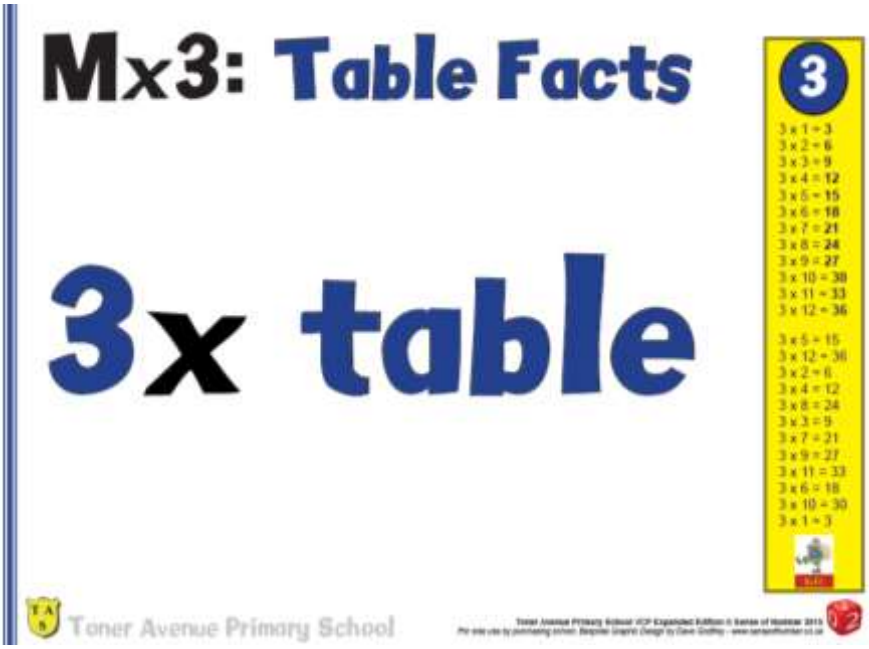
Mx3: Table Facts
3x table
3
3 x 1 = 3
3 x 2 = 6
3 x 3 = 9
3 x 4 = 12
3 x 5 = 15
3 x 6 = 18
3 x 7 = 21
3 x 8 = 24
3 x 9 = 27
3 x 10 = 30
3 x 11 = 33
3 x 12 = 36
3 x 5 = 15
3 x 12 = 36
3 x 2 = 6
3 x 4 = 12
3 x 8 = 24
3 x 3 = 9
3 x 7 = 21
3 x 9 = 27
3 x 11 = 33
3 x 6 = 18
3 x 10 = 30
3 x 1 = 3
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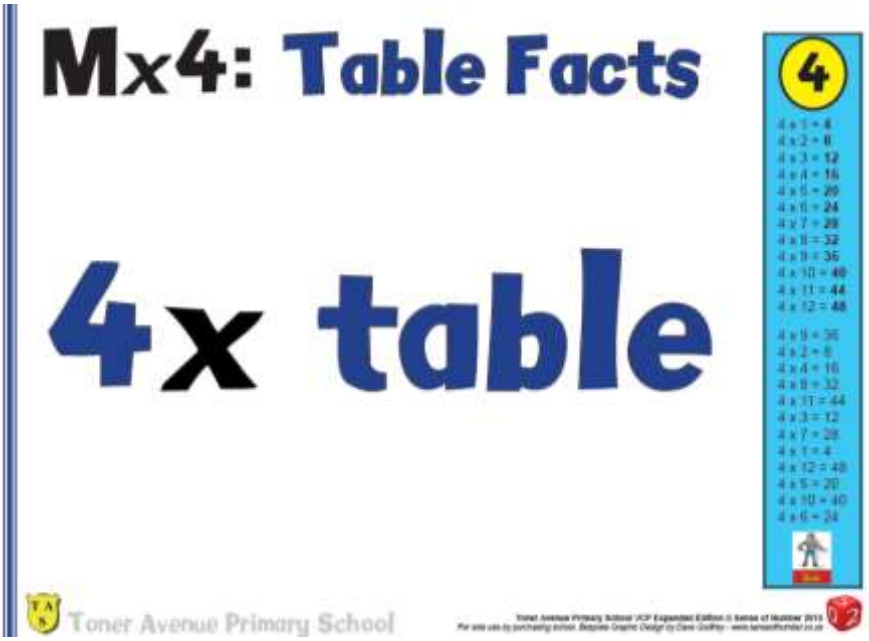
Mx4: Table Facts
4x table
4
4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40
4 x 11 = 44
4 x 12 = 48
4 x 9 = 36
4 x 2 = 8
4 x 4 = 16
4 x 8 = 32
4 x 11 = 44
4 x 3 = 12
4 x 7 = 28
4 x 1 = 4
4 x 12 = 48
4 x 5 = 20
4 x 10 = 40
4 x 6 = 24
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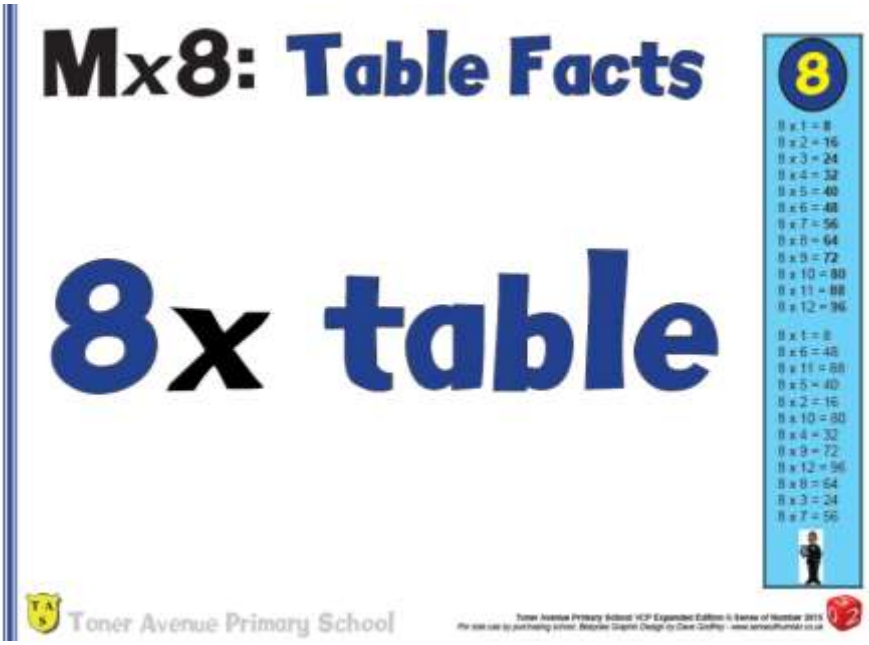
Mx8: Table Facts
8x table
8
8 x 1 = 8
8 x 2 = 16
8 x 3 = 24
8 x 4 = 32
8 x 5 = 40
8 x 6 = 48
8 x 7 = 56
8 x 8 = 64
8 x 9 = 72
8 x 10 = 80
8 x 11 = 88
8 x 12 = 96
8 x 1 = 8
8 x 6 = 48
8 x 11 = 88
8 x 5 = 40
8 x 2 = 16
8 x 10 = 80
8 x 4 = 32
8 x 9 = 72
8 x 12 = 96
8 x 8 = 64
8 x 3 = 24
8 x 7 = 56
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Division

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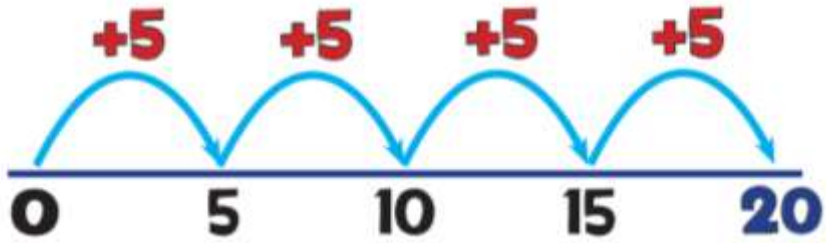
D5: Grouping on a Number Line



"How many 5s in 20?"
Answer: 4

$20 \div 5 = 4$

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(D10: Short Division)

Additional

$72 \div 4 = 18$

$$\begin{array}{r} 18 \\ 4\overline{)\,7^{3}2} \end{array}$$

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(D10: Short Division)

Additional:a

$65 \div 4 = 16\text{r}1$

$$\begin{array}{r} 16\text{r}1 \\ 4\overline{)\,6^{2}5} \end{array}$$

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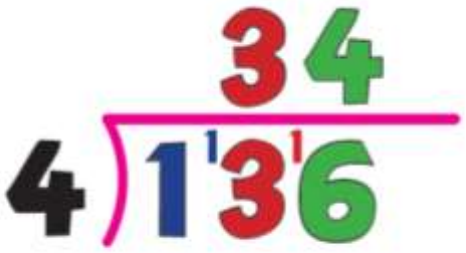
D10: Short Division

136 ÷ 4 = 34



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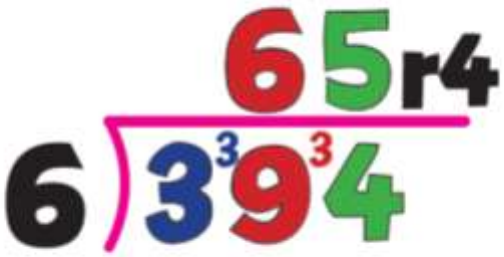
D10c: Short Division

394 ÷ 6 = 65r4



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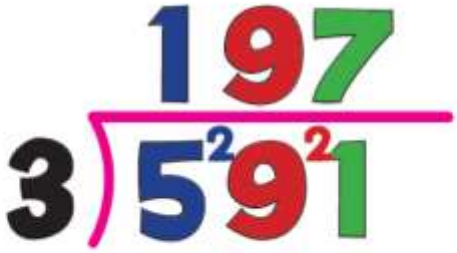
D10d: Short Division

591 ÷ 3 = 197



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