Deepdale Community Primary School - Maths Knowledge Organiser

Topic: Division | Year 5

Key Vocabulary:

times tables

divide

divided by

divided into

share equally

group

remainder

left (over)

partition

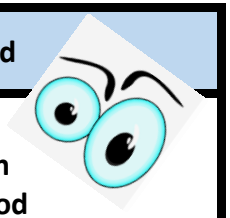
multiple

divisor

dividend

quotient

Key learning: choose an efficient method



In Year 5 we encourage you to look closely at the numbers in the calculation and make a decision about which method you will use:

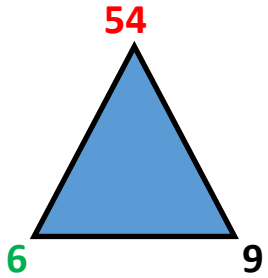
Always start at number 1 and only use a written method if you can't work it out mentally

1. Do I know the answer? (can I just say it automatically– rapid recall)
2. Can I work it out in my head? (mental method)
3. Do I need to use a jotting? (mental method)
4. Do I need a written method? (column method)

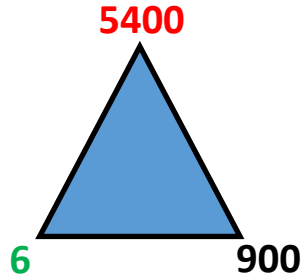
MENTAL METHOD

Key learning: use related facts to divide 4-digit multiples of 100 by a 1-digit number

Example: 5400 ÷ 6



I know 54 ÷ 6 = 9



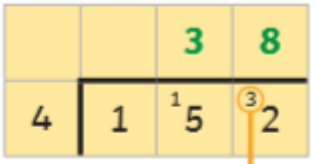
So 5400 ÷ 6 = 900

WRITTEN METHOD

Key learning: Divide numbers up to 4-digits by a 1-digit number using short division and interpret remainders

Continue to use the bus stop method of short division

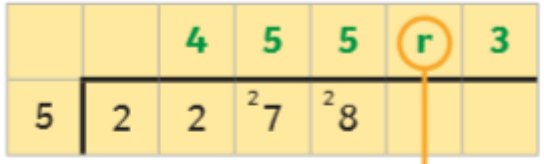
Examples:



← 152 ÷ 4 = 38

15 ÷ 4 = 3 remainder 3

Remember to regroup any remainders and move them into the next column.



← 2278 ÷ 5 = 455 r 3

28 ÷ 5 = 5 remainder 3

If your calculation has a remainder, remember to record it in the answer using the letter r.

MENTAL METHOD

Key learning: Divide a whole number by 10 , 100 and 1000

(for decimal examples see the Decimal Knowledge Organiser)

Examples:

35 600 ÷ 100 =

Tth	Th	H	T	U
3	5	6	0	0
		3	5	6

35 600 ÷ 100 = 356

Each digit becomes 100 times smaller (moves 2 place value columns to the right)

230 000 ÷ 1000 =

Hth	Tth	Th	H	T	U
2	3	0	0	0	0
			2	3	0

230 000 ÷ 1000 = 230

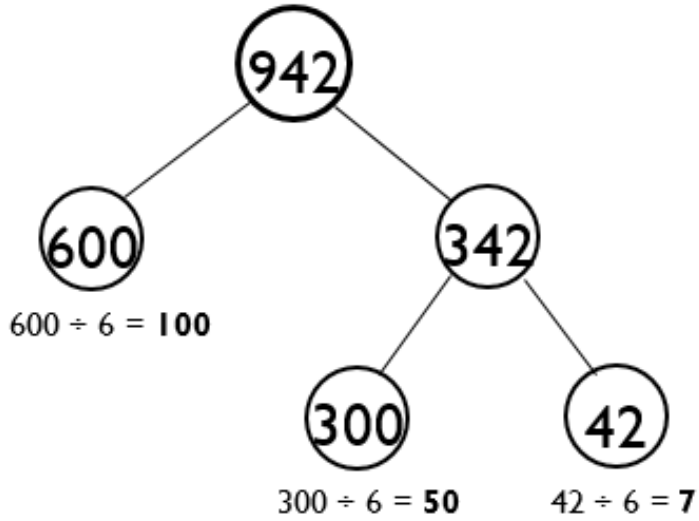
Each digit becomes 1000 times smaller (moves 3 place value columns to the right)

MENTAL METHOD

Key learning: Use partitioning to divide 3-digit numbers by a 1-digit number

Example:

942 ÷ 6 =157



Other examples using your times table knowledge:

756 ÷ 9 By partitioning into 720 and 36

765 ÷ 5 By partitioning into 500 and 250 and 15

861 ÷ 7 By partitioning into 700 and 140 and 21