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Introduction

The aim of the 'Sum Fun' series is to enable teachers to gather evidence and assess children's learning in maths.

Linked to year group objectives from the new September 2014 curriculum, each fun activity sheet requires pupils to use their mathematical skills to solve a series of questions. They must then use the answers to 'crack the code' and find the solutions to silly jokes, puns and riddles. The activities use Assessment for Learning techniques such as child friendly 'I can...' statements at the top of each sheet so that pupils can be clear about the learning objective, and they also encourage self-assessment because if a solution doesn't make sense, pupils will need to spot and correct their mistakes. Quick reference answer pages are provided for the teacher at the back of the book, or to enable pupils to self-mark. There are several sheets per objective so that each one can be tested at different points in the year if necessary, without repetition of the same questions and jokes. This could be at the end of a unit of work, or as a one-off assessment task. The assessment checklist on pages 98–99 will help you to keep track of children's progress.

The activities are in a fun format that children soon become familiar with and look forward to solving, promoting high levels of pupil engagement. Children are motivated by the fun element of the jokes and will compete to be the first to get the answer!

As well as an assessment tool, the sheets can be used as independent tasks in everyday lessons. They are clearly linked to year group objectives from the new curriculum, providing an easy way of differentiating group or individual activities without any extra work for the class teacher! They make good whole class starter or plenary activities on an interactive whiteboard, or could just be used as fun 'time fillers'!

Long or short division (1)

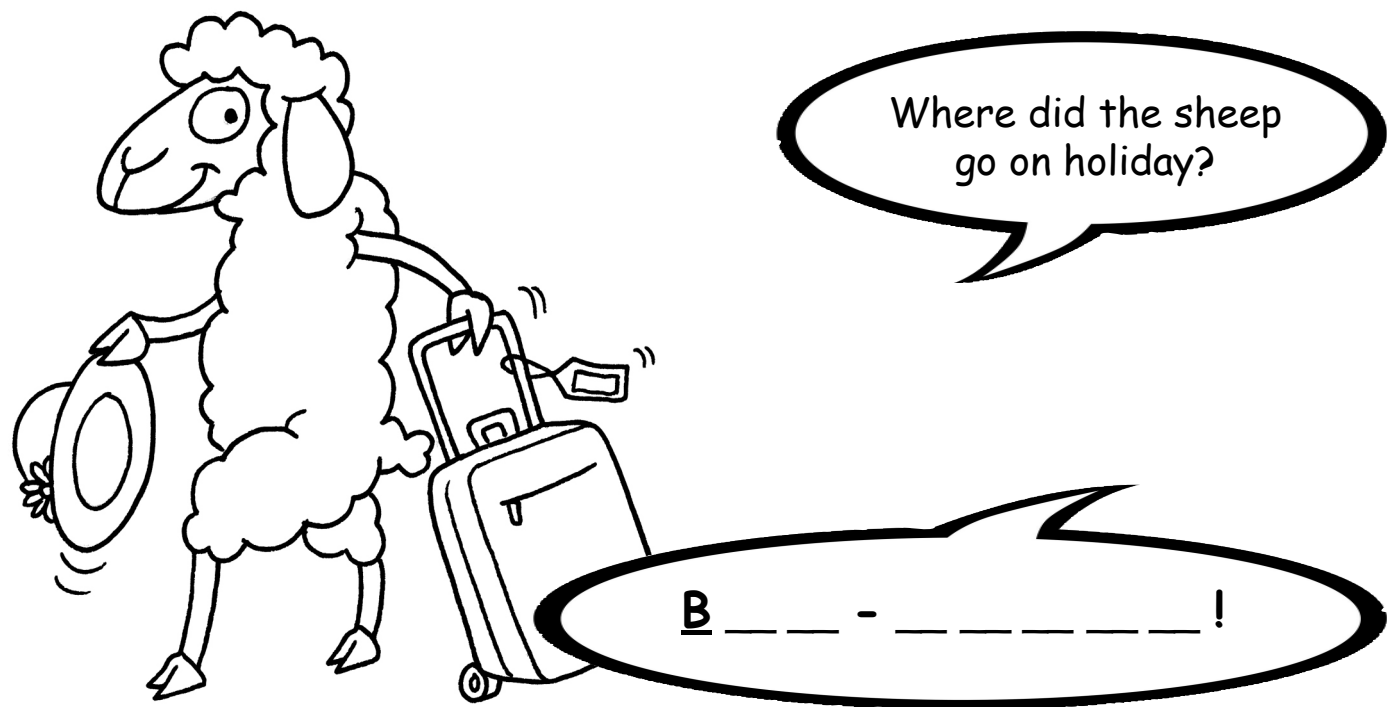
Learning objectives

I can use a written method to divide numbers up to 4-digits by a 2-digit number.

~~12~~² 25%
÷ 3/12 =
XVII 0.25

To solve the joke, do the calculation using short or long division. Then use the grid to find the letter that goes with each answer and write it in the speech bubble. The first one has been done for you!

52	12	18	35	37	16	25	67	28
C	H	U	A	E	M	S	O	B



336 ÷ 12
=
28

805 ÷ 23
=

665 ÷ 19
=

1140 ÷ 95
=

735 ÷ 21
=

1360 ÷ 85
=

980 ÷ 28
=

2450 ÷ 98
=

Year 6 – Addition, subtraction, multiplication and division

- Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.

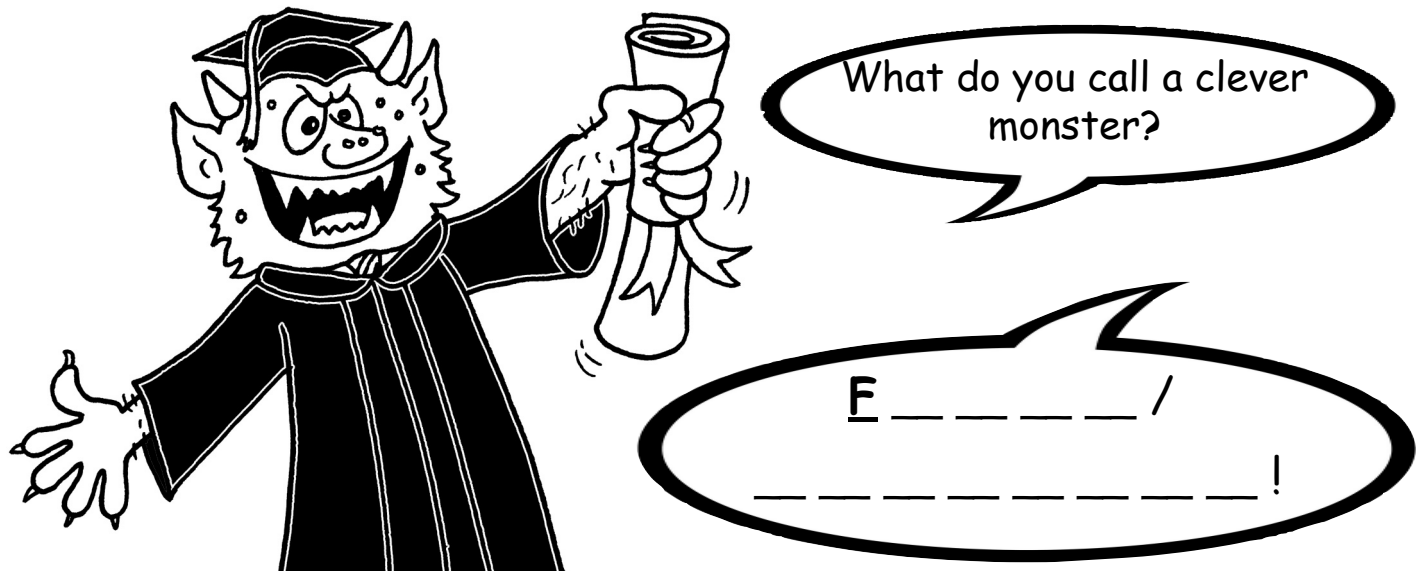
Prime numbers (1)

Learning objectives I know the prime numbers up to 19. I can work out whether numbers up to 100 are prime.	12% 25% ÷ 3/12 = XVII 0.25
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To solve the joke, work out which of the numbers in the list is the prime number. Then use the grid to find the letter that goes with each answer and write it on the line. The first one is done for you!

79	74	25	19	51	23	41	47	89	43	7	33	83
A	Q	B	R	C	S	D	T	E	U	F	V	G

57	37	31	27	63	67	87	11	91	59	53	73	21
W	I	H	J	Y	K	Z	L	X	M	N	O	P



7	27	74	21	63
51	63	57	53	67
25	19	79	91	87
7				

89	63	33	51	47	89	27	91
27	87	53	63	57	51	51	53
57	37	21	23	27	74	37	21

Year 5 – Multiplication and division • Establish whether a number up to 100 is prime and recall prime numbers up to 19.

Place value and ordering (2)

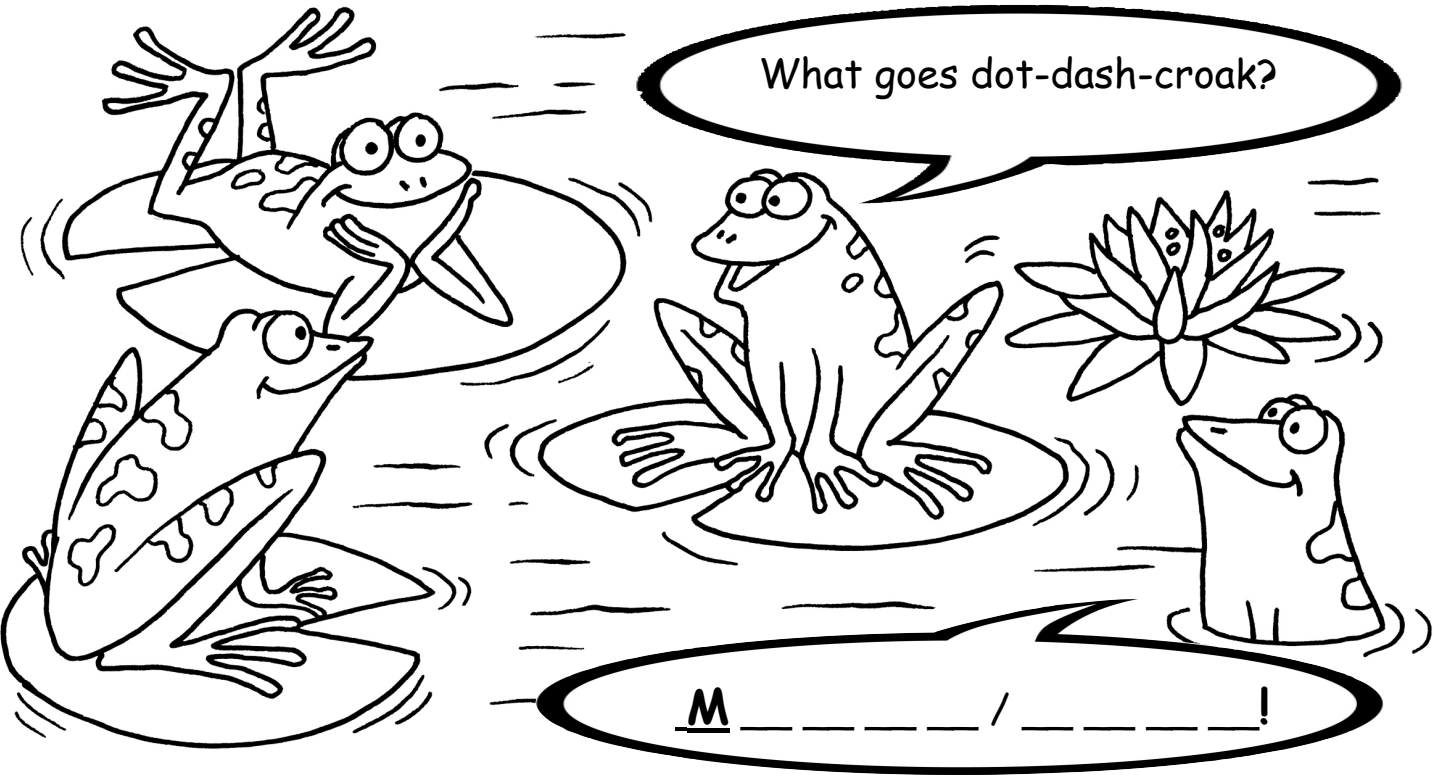
Learning objectives

I know the value of each digit in numbers up to 1,000,000.
I can use place value to say which is the largest number.

~~12~~²⁵ 25%
÷ 3/12 =
XVII 0.25

To solve the joke, use place value to work out the value of the underlined digit and write the answer in the oval. Then use the grid to find the letter that goes with each answer. The first one is done for you!

20,000	400	600,000	2,000	400,000	6,000	200,000	40,000
M	T	O	R	A	S	D	E



8 <u>2</u> 7,182	<u>6</u> 36,256	31 <u>2</u> ,005	89 <u>6</u> ,185	5 <u>4</u> 0,404
20,000				
644, <u>4</u> 28	<u>6</u> 66,256	<u>4</u> 54,545	<u>2</u> 22,222	

Year 5 – Number and place value

- Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.