




### Mathematics in Years 4 and 5



I save 1p today, 2p tomorrow and 4p the next day and so on, doubling each day.  
How much do I save on day 10?




**Answer = £5.12**



Nov 6-18:01


### Year 4 Mental Calculations



Recall multiplication and division facts for multiplication tables up to  $12 \times 12$   
 Count in multiples of 6, 7, 9, 25 and 1,000  
 Find 1,000 more or less than a given number  
 Count backwards through 0 to include negative numbers  
 Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)  
 Order and compare numbers beyond 1,000  
 Round any number to the nearest 10, 100 or 1,000  
 Read Roman numerals to 100 (I to C)  
 Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers recognise and use factor pairs and commutativity in mental calculations  
 Practise mental methods for addition and subtraction with increasingly large numbers to aid fluency

Nov 6-17:57


### Year 5 Mental Calculations



Multiply and divide numbers mentally  
 Add and subtract numbers mentally with increasingly large numbers  
 Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals  
 Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit  
 Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0  
 Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000  
 Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000  
 Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers  
 Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19  
 Recognise and use square numbers and cube numbers, and the notation for squared ( $^2$ ) and cubed ( $^3$ )

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### Written Calculations



Addition  
 Multiplication  
 Subtraction  
 Division

Nov 12-20:23

### What We do...



\* Key vocabulary pulled out - **developing pupil maths talk**  
 \* Practical - visual model - numbers - **in context**  
 \* Top Tips & model calculation - **on display**  
 Place Value = **ONES not units**  
**DO IT      USE IT      OWN IT**


Nov 6-18:05

### Y4/Y5 Compact Addition

**Practical equipment**

Estimation = 2465 + 718 =

Th	H	T	O
2	4	6	5
7	1	8	
3	1	8	3
1	1		



Nov 12-19:44

Pushing More able


$$\begin{array}{r}
 5 \boxed{9} 5 \boxed{8} \\
 + \boxed{2} 6 \boxed{3} 4 \\
 \hline
 8 4 9 2 \\
 \hline
 \phantom{0} 1 \phantom{0} 1
 \end{array}$$

In addition  
Decimals  
★ Inverse ★

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Subtraction - by partitioning Y4 DIENES

Columns  $382 - 117 =$




$$\begin{array}{r}
 3 \text{ H } 8 \text{ T } 2 \text{ O} - 3 \text{ H } 0 \text{ T } 0 \text{ O} \\
 - 1 \text{ H } 1 \text{ T } 7 \text{ O} - 1 \text{ H } 0 \text{ T } 0 \text{ O} \\
 \hline
 2 \text{ H } 6 \text{ T } 5 \text{ O} \leftarrow 2 \text{ H } 0 \text{ T } 0 \text{ O} + 6 \text{ T } 0 \text{ O} + 5 \text{ O}
 \end{array}$$

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Compact Subtraction Y5

Estimation =  $326.3 - 185.4 =$

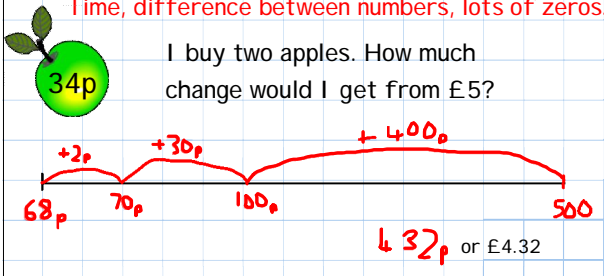
$$\begin{array}{r}
 \text{H T O . t} \\
 3 \text{ H } 2 \text{ T } 5 \text{ O } . 3 \\
 - 1 \text{ H } 8 \text{ T } 5 \text{ O } . 4 \\
 \hline
 1 \text{ H } 4 \text{ T } 0 \text{ O } . 9
 \end{array}$$


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Y5 Subtraction - Selecting the most efficient method

Time, difference between numbers, lots of zeros.

I buy two apples. How much change would I get from £5?



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GR Multiplication expanded column Y4

Estimation =  $387 \times 4 =$

$$\begin{array}{r}
 \text{Th H T O} \\
 3 \text{ H } 8 \text{ T } 7 \text{ O} \\
 \times \phantom{0} \phantom{0} 4 \\
 \hline
 2 \text{ H } 8 \text{ T } (4 \times 7) \\
 3 \text{ H } 2 \text{ T } 0 (4 \times 80) \\
 1 \text{ H } 2 \text{ T } 0 \text{ O} (4 \times 300) \\
 \hline
 1 \text{ H } 5 \text{ T } 4 \text{ O } 8
 \end{array}$$

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Multiplication Compact Column Y5

Estimation =  $68 \times 37 =$

$$\begin{array}{r}
 \text{Th H T O} \\
 6 \text{ H } 8 \text{ T } 0 \text{ O} \\
 \times \phantom{0} \phantom{0} 3 \text{ H } 7 \text{ T } 0 \text{ O} \\
 \hline
 4 \text{ H } 7 \text{ T } 6 \text{ O} \\
 2 \text{ H } 0 \text{ T } 4 \text{ O} 0 \\
 \hline
 2 \text{ H } 5 \text{ T } 1 \text{ O } 6
 \end{array}$$

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GR Division

$374 \div 8 =$

Y4/5

0 4 6 r 6

8  $\overline{) 374}$

6

56

16

64

24

72

32

80

40

48

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