

## Multiplication

Continue to use the grid method to aid place value and mental arithmetic.

**M5a: Grid Method**  
Short Multiplication

$$43 \times 6 = 258$$

x	40	3
6	240	18

$$240 + 18 = 258$$

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Develop column method for speed, and to make the transition to long multiplication easier.

**(M6: Expanded Column)**  
Additional a

$$\begin{array}{r} \begin{array}{c} 100 \quad 10 \quad 1 \\ 43 \\ \times 6 \\ \hline 18 \quad (6 \times 3) \\ 240 \quad (6 \times 40) \\ \hline 258 \end{array} \end{array}$$

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**(M7: Column Multiplication)**  
Additional a

$$\begin{array}{r} \begin{array}{c} 100 \quad 10 \quad 1 \\ 43 \\ \times 6 \\ \hline 258 \\ 1 \end{array} \end{array}$$

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## Division

Chunking and short division

**D9: Mega Hunk!**

$$136 \div 4 = 34$$

Mega Hunk!      Chunk

$$\begin{array}{r} 120 + 16 \\ \downarrow \quad \downarrow \\ 30 + 4 = 34 \end{array} \div 4$$

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Use facts to chunk

**D11: Chunking**

$$\begin{array}{r} 34 \\ 4 \overline{)136} \\ -120 \quad (4 \times 30) \\ \hline 16 \\ -16 \quad (4 \times 4) \\ \hline 0 \end{array} \quad 136 \div 4 = 34$$

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**D10: Short Division**

$$136 \div 4 = 34$$
$$\begin{array}{r} 34 \\ 4 \overline{)136} \end{array}$$

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# YEAR 4 WRITTEN METHODS IN MATHS

*A guide for Parents/Carers*



## Year 4 expectations

Count backwards through zero to include negative numbers.

- Compare and order numbers beyond 1,000.
- Compare and order numbers with up to 2 decimal places.

- Read Roman numerals to 100.
- Find 1,000 more/less than a given number.
- Count in multiples of 6, 7, 9, 25 and 1000.
- Recall and use multiplication and division facts all tables to 12x12.
- Recognise Place Value of any 4-digit number.
- Round any number to the nearest 10, 100 or 1,000.

- Round decimals with 1 decimal place to nearest whole number.

- Add and subtract:
  - Numbers with up to 4-digits using written columnar method

- Multiply:

- 2-digit by 1-digit
- 3-digit by 1-digit

- Count up/down in hundredths.
- Recognise and write equivalent fractions
- Add and subtract fractions with same denominator.
- Read, write and convert time between analogue and digital 12 and 24 hour clocks.

### Addition

'Carry' tens and hundred

**A7: Column Addition**

$$\begin{array}{r}
 \begin{array}{ccc} 100 & 10 & 1 \end{array} \\
 687 \\
 + 248 \\
 \hline
 935 \\
 \hline
 \begin{array}{ccc} 1 & 1 & \end{array}
 \end{array}$$

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Addition involving 4 digits

**A7d: Column Addition**

$$\begin{array}{r}
 4873 \\
 + 3762 \\
 \hline
 8635 \\
 \hline
 \begin{array}{cc} 1 & 1 \end{array}
 \end{array}$$

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### Subtraction

Expanded column

**S10x: Expanded Column**  
Subtraction (100, 10, 1s)

$$\begin{array}{r}
 784 - 351 = 433 \\
 \\
 \begin{array}{r}
 700 \quad 80 \quad 4 \\
 - 300 \quad 50 \quad 1 \\
 \hline
 400 \quad 30 \quad 3
 \end{array}
 \end{array}$$

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Subtraction using decomposition

**S11x: Column Subtraction**

$$\begin{array}{r}
 \begin{array}{ccc} 100 & 10 & 1 \end{array} \\
 \begin{array}{r}
 5 \quad 9 \quad 1 \\
 605 \\
 - 328 \\
 \hline
 367
 \end{array}
 \end{array}$$

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