

Addition
Subtraction
Multiplication

See Y5 for previous steps

Th H TO x O

(short multiplication - four digit multiplication by a single digit) $4346 \times 8 = 34768$

300 40 6

Division

Children will continue to use written methods to solve short division

TOO and HTO +TO

Long division HTO + TO

972 + 36

27

36) 972

Yr

Children should extend the carrying

Regrouping

6

method to calculations with any number
of digits,

ThH TO

Informal method

Grid method four digit by one digit

7648

6584

+ 1486

9134

111

+ 5848

12432

111

42

6432 786

15

9 7 7

6

B

B

+

11944

121

1

$$\begin{array}{r} 3 \\ 7 \\ 7 \ 9 \\ \times 4000 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \ 8 \\ 4 \\ 8 \ 32000 \ 2400 \ 320 \\ \hline 48 \end{array}$$

Children should:

Using similar methods children will:

Add **several numbers** with **different numbers of digits**

Begin to add two or more decimal fractions with **up to four digits and either one or two decimal places** Know that the decimal points should line up under each other, particularly **when adding or subtracting mixed amounts**,

e.g. $401.2 + 26.85 + 0.71$

be able to subtract numbers with **different numbers of digits** Be able to subtract two or more decimal fractions with up to three digits and either one or two decimal places

Know that decimal points should line up under each other

Moving on to HTO X TO

Long multiplication - multiplication by more than a single digit $372 \times 24 = 8928$

$$\begin{array}{r} \mathbf{X} \\ \mathbf{300} \\ \mathbf{70} \\ \mathbf{2} \end{array}$$

$$\begin{array}{r} \mathbf{20} \\ \mathbf{60} \\ 6000 \\ \mathbf{0014} \\ 1400 \\ 40 \end{array}$$

$$\begin{array}{r} 4 \\ \mathbf{1200 \ 280} \\ 8 \end{array}$$

Practise the use of the bar model to add algebra

Practise the use of the bar model to **subtract algebra**

$$\begin{array}{r} > \\ \underline{720} \ (20 \times 36) \\ 252 \\ \underline{252} \ (7 \times 36) \\ 0 \end{array}$$

Use **WIK** sheet

$$\begin{array}{l} 1 \times 36 = 36 \\ 2 \times 36 = 72 \\ 4 \times 36 = 144 \\ 5 \times 36 = 180 \\ 8 \times 36 = 288 \end{array}$$

Moving on to formal compact column method

72
X 38
2160
576
1
2736

Multiplying decimals

Using similar methods, they will be able to multiply decimals with up to two decimal places by a single digit number and then two digit numbers, approximating first. They should know that the decimal points line up under each other.

4.92 X 3 = is approximately 15 and the answer to the calculation is 12.76

10 X 36 = 360

Any remainders should be as fractions E.g. if the children were dividing 32 by 10, the answer should be shown as $3 \frac{2}{10}$ which could then be written as 3% in its lowest terms. Some children need the short division method:

16 r 3
7|11 45

Extension:

Extend to decimals with up to two decimal places. Children should know that decimal places line up under each other

9 . 5
5 4 7.5
X
4
0.9 0.02
3
12
2.7 0.06

Move on to the formal column method

Practise the use of the bar model to multiply algebra

2 9

0