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Year 6

Addition

Add several numbers of increasing complexity including integers and decimals. Tenths, hundredths and thousandths should be correctly aligned with the decimal points lined up vertically including in the answer row.

As in previous year group, zeros should be added in to any empty decimal places to show there is no value to add.

Example:
23.361 + 9.08 + 59.77 + 1.3
becomes;

```
 23.361
  9.080
 59.770
  1.300 +
 ------
 93.511
 2 1  2
```

Children should only use this method when additions cannot be done mentally or using a quicker, more informal approach. See *Key Skills for Addition.*

Subtraction

Use the compact column method to subtract more complex integers:

```
  0 14  9
 ~~150~~, 699
   89, 949 –
 ----------
   60, 750
```

Use the compact column method to subtract decimals with different numbers of decimal places:

```
 105.419
  36.080 -
  69.339
 -------
```

Pupils should be encouraged to apply their knowledge of a range of mental strategies, mental recall skills and informal and formal written methods when selecting the **most efficient** method to work out subtraction problems.

Multiplication

Extend use of short multiplication to multiplying decimals with up to 2 decimal places by a single digit integer:

```
   3.19
      8  x
 -------
  25.52
    1 7
```

They will need to be taught that the single digit belongs to the unit column which is why it is at the left hand side rather than the right hand side when multiplying by an integer.

Decimal points must be aligned correctly for the question and answer.

Pupils should be encouraged to approximate to ensure a sensible answer, e.g. round down to 3 so 3x8 is 24.

The long multiplication method should continue to be taught/consolidated, multiplying a 2 digit by at least a 4 digit number.

Division

Introduce divding a three-digit number by a 2 digit number.

Teach the long division method:

```
25|425
```

```
  0
25|425
```

```
  0
25|425
  0
 --
```

```
  0
25|425
  0
 --
  4
```

```
  0
25|425
 0↓
 --
 42
```

```
  0
25|425
 0↓
 --
 42
```

```
  01
25|425
 0↓
 --
 42
 25
 --
```

```
  01
25|425
 0↓
 --
 42
```

```
  01
25|425
 0↓
 --
 42
 25
 --
 17
```

```
  01
25|425
 0↓
 --
 42
 25
 --
175
```