The National Curriculum Guide to Written Calculations

Below you will find some examples which we teach the children when calculating the four main operations- addition and subtraction and multiplication and division.

Addition and subtraction

789 + 642 becomes

```
    7  8  9
 +  6  4  2
 ───────────
 1  4  3  1
       1  1
```

Answer: 1431

874 – 523 becomes

```
    8  7  4
 −  5  2  3
 ──────────
    3  5  1
```

Answer: 351

932 – 457 becomes

```
   8  12  1
   9   3  2
 − 4   5  7
 ──────────
   4   7  5
```

Answer: 475

932 – 457 becomes

```
      1   1
   9  3   2
 − 4  5   7
    5  6
 ──────────
   4  7   5
```

Answer: 475

Short multiplication

24 × 6 becomes

```
       2  4
 ×        6
 ──────────
    1  4  4
       2
```

Answer: 144

342 × 7 becomes

```
    3  4  2
 ×        7
 ──────────
 2  3  9  4
    2  1
```

Answer: 2394

2741 × 6 becomes

```
    2  7  4  1
 ×           6
 ─────────────
 1  6  4  4  6
    4  2
```

Answer: 16 446

Long multiplication

24 × 16 becomes

```
       2
       2  4
 ×     1  6
 ──────────
    2  4  0
    1  4  4
 ──────────
    3  8  4
```

Answer: 384

124 × 26 becomes

```
    1  2
    1  2  4
 ×     2  6
 ──────────
 2  4  8  0
    7  4  4
 ──────────
 3  2  2  4
    1  1
```

Answer: 3224

124 × 26 becomes

```
    1  2
    1  2  4
 ×     2  6
 ──────────
    7  4  4
 2  4  8  0
 ──────────
 3  2  2  4
    1  1
```

Answer: 3224

Short division

98 ÷ 7 becomes

```
        1   4
      ┌─────────
      │    2
  7   │ 9   8
```

Answer: 14

432 ÷ 5 becomes

```
          8   6   r 2
        ┌─────────────
        │      3
  5     │ 4   3   2
```

Answer: 86 remainder 2

496 ÷ 11 becomes

```
            4   5   r 1
          ┌─────────────
          │      5
  1   1   │ 4   9   6
```

Answer: 45 $\frac{1}{11}$

Long division

432 ÷ 15 becomes

```
              2   8   r 12
        ┌───────────────
  1   5 │ 4   3   2
          3   0   0
        ───────────
          1   3   2
          1   2   0
        ───────────
              1   2
```

Answer: 28 remainder 12

432 ÷ 15 becomes

```
              2   8
        ┌───────────────
  1   5 │ 4   3   2
          3   0   0     15×20
        ───────────
          1   3   2
          1   2   0     15×8
        ───────────
              1   2
```

$$\frac{\cancel{12}}{\cancel{15}} = \frac{4}{5}$$

Answer: 28 $\frac{4}{5}$

432 ÷ 15 becomes

```
              2   8 · 8
        ┌───────────────
  1   5 │ 4   3   2 · 0
          3   0   ↓
        ───────────
          1   3   2
          1   2   0   ↓
        ───────────
              1   2   0
              1   2   0
            ───────────
                      0
```

Answer: 28·8