Addition

Pencil and paper procedures

Partition

$$445 + 212 = 657$$

445 + 212 = (400 + 200) + (40 + 10) + (5 + 2) = 600 + 50 + 7 = 657

Column addition



+67



Expanded column addition

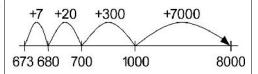


The Devonshire Hill Primary School - Calculation Policy - Year 6 Subtraction

Pencil and paper procedures

The counting-up method

8000 - 673 = 7327



Column subtraction

Revert to expanded methods if the children have difficulty

Multiplication

Pencil and paper procedures

Partition

30 + 8		38
× 7		× 7
210	$30 \times 7 = 210$	210
56	$8 \times 7 = 56$	56
266		266

Column multiplication

Multiply the units in the multiplier by the 12 units in the multiplicand, writing any tens 73 digits above the tens column. In this case, $3 \times 8 = 24$, so the tens digit (2) is x 48 written above the tens column. Multiply the tens in the multiplier by the units in 584

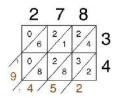
the two parts to find the answer.

the multiplicand. In this case, 70x8=560 2920 + 2 tens (20) = 580. Now multiply the 3504 units and tens in the multiplier by the tens 11 in the multiplicand. Calculate the total of

Expanded column multiplication

46
X 32
1200 (40 x 30)
180 (6 x 30)
80 (40 x 2)
12 (6 x 2)
1472

Chinese method



 $278 \times 34 = 9.452$

Division

Pencil and paper procedures

Short division e.g. 2565 ÷ 5

Chunking e.g. 977 ÷ 36



Refine to 20 groups

instead of two

groups of 10

- 360 (10 x 36) 617

- 360 (10 x 36)

- 180 (5 x 36) 77 - 72 (2 x 36)

> 10+10+5+2=27 Answer: 27 r5

Long division

15 8 6 4 0

15 into 8 doesn't go, so look at the next

15 8 6 4 0

15 goes into 86 five times, so put a 5 above the 6. 15 x 5 = 75

Take that 75 away from the 86 to get your remainder

15 8 6 4 0 7 5

Next, carry the 4 down to make 114.

15 goes into 114 seven times, so put a 7 above the 4 15 x 7 = 105

Take 105 from the 114 to get your remainder 114 – 105 = 9



Carry the 0 down to make 90

15 goes into 90 exactly 6 times, so put a 6 above the 0

15 x 6 = 90

8,640 + 15 = 576