Number Facts: Year 4

Number and place value
Pupils should be taught to:
- count from 0 in multiples of 6, 7, 9, 25 and 1000
- find 100 or 1000 more or less than a given number up to 10,000

Addition and subtraction
Pupils should be taught to:
- order and compare numbers beyond 1000
- add and subtract numbers with up to 4 digits

Multiplication and division
Pupils should be taught to:
- recall and use multiplication and division facts for multiplication tables up to 12 x 12
- multiply two-digit and three-digit numbers by a one-digit number

Fractions
Pupils should be taught to:
- count up and down in hundredths; recognise that hundredths arise from dividing an object into 100 equal parts and in dividing tenths by 10
- recognise and write decimal equivalents of $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$

Measurement
Pupils should be taught to:
- convert between different units of measure (e.g. kilometres to metres, hours to minutes)

Number Facts: Number and place value

- Know the sequence of counting in multiples of 25.

Number Facts: Measure

- £5.00 x 2 = £10.00
  £50 x 2 = £100
  £500 x 2 = £1000
  £2.50 x 4 = £10.00
  £25 x 4 = £100
  £250 x 4 = £1000
  £2.00 x 5 = £10.00
  £20 x 5 = £100
  £200 x 5 = £1000

- 10cm = $\frac{1}{10}$ m 1cm = $\frac{1}{100}$ m
- 100g = $\frac{1}{10}$ kg
  1.1 kg = 1kg 100g = 1kg + $\frac{1}{10}$ kg
- 48 hours = 2 days
  120 minutes = 2 hours
  90 minutes = 1 $\frac{1}{2}$ hours

Number Facts: Fractions

- 100 ÷ 10 = 10 1000 ÷ 10 = 100
  10 ÷ 10 = 1 1 ÷ 10 = $\frac{1}{10}$
- 1 ÷ 10 = $\frac{1}{10}$ = 0.1 2 ÷ 10 = $\frac{2}{10}$ = 0.2
  3 ÷ 10 = $\frac{3}{10}$ = 0.3 4 ÷ 10 = $\frac{4}{10}$ = 0.4
  5 ÷ 10 = $\frac{5}{10}$ = 0.5 6 ÷ 10 = $\frac{6}{10}$ = 0.6
  7 ÷ 10 = $\frac{7}{10}$ = 0.7 8 ÷ 10 = $\frac{8}{10}$ = 0.8
  9 ÷ 10 = $\frac{9}{10}$ = 0.9 10 ÷ 10 = $\frac{10}{10}$ = 1.0
- $\frac{1}{4}$ = 0.25 $\frac{1}{2}$ = 0.5
  $\frac{3}{4}$ = 0.75

Number facts: Addition and subtraction

- Know or derive all the complements to 10,000 using multiples of 1000 and related subtraction facts
  $x + y = 10{,}000$; x =? and y = ?

  1 + 9 = 10 (Year 1)
  10 + 90 = 100 (Year 2)
  100 + 900 = 1000 (Year 3)
  1000 + 9000 = 10,000 (Year 4)

- Mentally add and subtract numbers with up to 2 digits reliably

Number Facts: Multiplication and division

- Know the 6x, 7x, 9x, 11x, and 12x tables and the related division facts
- Know that…
  500 x 2 = 1000 1000 ÷ 2 = 500
  250 x 4 = 1000 1000 ÷ 4 = 250
  200 x 5 = 1000 1000 ÷ 5 = 200

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Mathematical models and images to support conceptual understanding underpinning key facts in Year 4

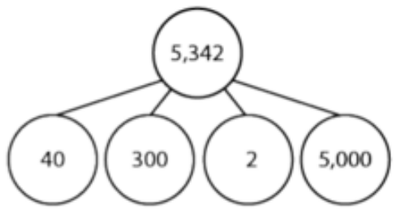
eighteen 100-value place-value counters in two tens frames to show 1800

1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

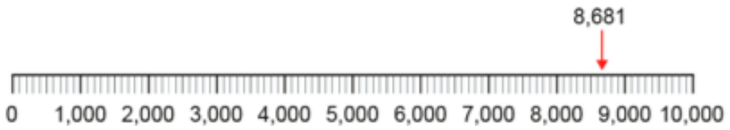
× 10 ÷ 10

80 × 10 = 800 80 ÷ 10 = 8

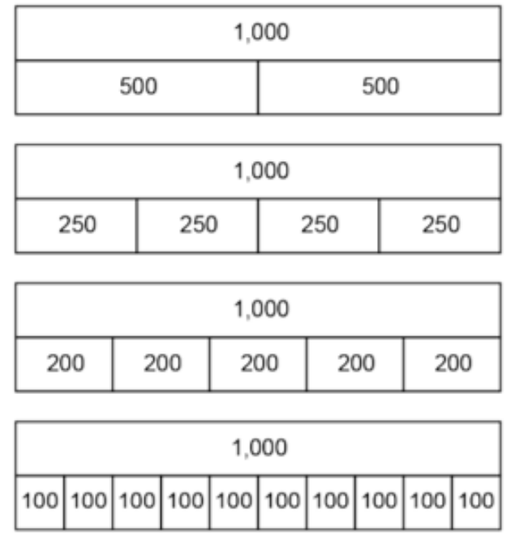
Gattegno chart to multiply and divide by 10



Representations of the place value composition of 5,342



number-line to identify the previous and next multiple of 1,000



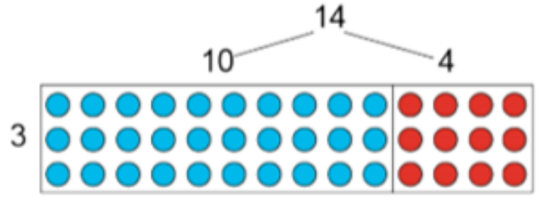
bar models showing 1,000 partitioned into 2, 4, 5, and 10 equal parts and

$1000 \div 2 = 500$ and $\frac{1}{2}$ of $1000 = 500$

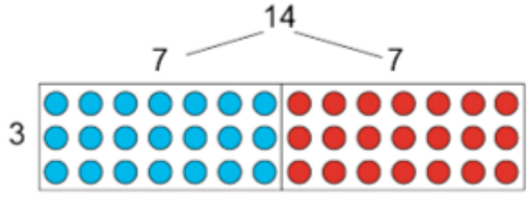
$1000 \div 4 = 250$ and $\frac{1}{4}$ of $1000 = 250$

$1000 \div 5 = 200$ and $\frac{1}{5}$ of $1000 = 200$

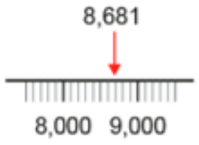
$1000 \div 10 = 100$ and $\frac{1}{10}$ of $1000 = 100$



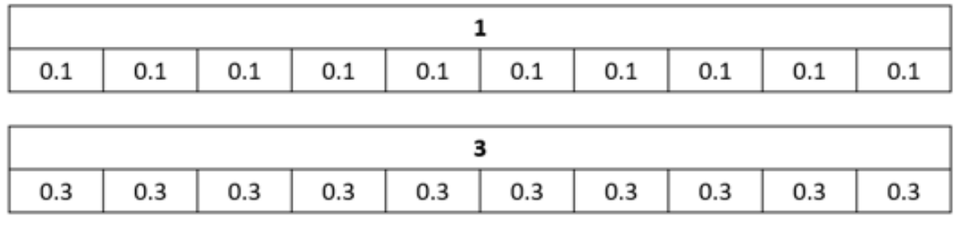
array to show that 14 x 3 = 10 x 3 + 4 x 3



array to show that 14 x 3 = 2 x 7 x 3



previous multiple of 1,000: 8,000 < 8,681 < **next** multiple of 1,000: 9,000



bar models showing 1 ÷ 10 = 0.1 and 3 ÷ 10 = 0.3

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