Year 4 Term 1

Place value chart

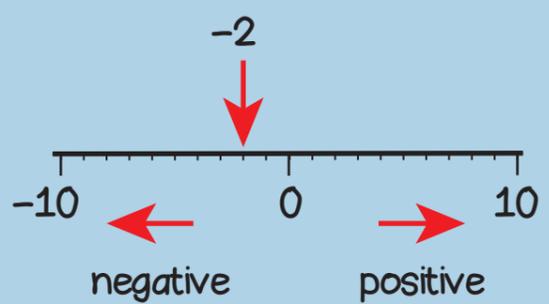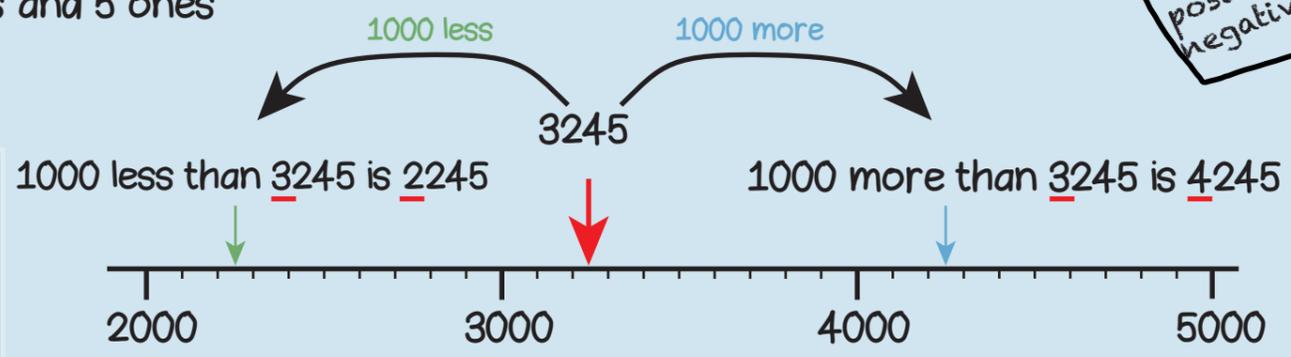| 1000s	100s	10s	1s
1000 1000 1000	100 100	10 10 10 10	1 1 1 1 1
3	2	4	5

three thousand, two hundred and forty-five

3 thousands, 2 hundreds, 4 tens and 5 ones

In order from smallest to largest
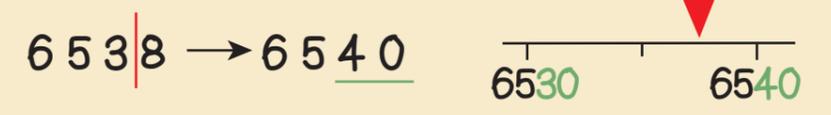
2987, 5894, 6080

4261, 4406, 4540

Stop and look. What do you notice?

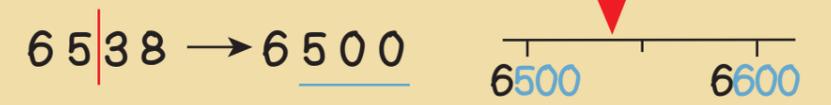thousands digit round multiple positive negative

1000 less ← 3245 → 1000 more

1000 less than 3245 is 2245

1000 more than 3245 is 4245

2000   3000   4000   5000

−2

−10 ← 0 → 10

negative   positive

5 or more - round up
4 or less - round down

Round to the **nearest ten**

6 5 3 8 → 6 5 4 0

6530   6540

Round to the **nearest hundred**

6 5 3 8 → 6 5 0 0

6500   6600

Round to the **nearest thousand**

6 5 3 8 → 7 0 0 0

6000   7000

Equilateral Triangles
3 equal sides

Isosceles Triangles
2 equal sides

Scalene Triangles
all sides different

trapezium parallelogram rhombus kite adjacent equilateral scalene isosceles

Quadrilaterals are shapes with 4 straight sides
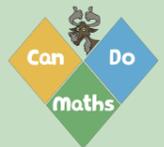
parallelogram - opposite sides parallel

rectangles - 4 right angles

rhombus - 4 equal sides

squares

Trapezium - exactly one pair of parallel sides

Kites - 2 pairs of equal adjacent sides

Can Do Maths

You CanDo all the multiplication facts of 6.

0 x 6	= 0	= 6 x 0
1 x 6	= 6	= 6 x 1
2 x 6	= 12	= 6 x 2
3 x 6	= 18	= 6 x 3
4 x 6	= 24	= 6 x 4
5 x 6	= 30	= 6 x 5
6 x 6	= 36	= 6 x 6
7 x 6	= 42	= 6 x 7
8 x 6	= 48	= 6 x 8
9 x 6	= 54	= 6 x 9
10 x 6	= 60	= 6 x 10
11 x 6	= 66	= 6 x 11
12 x 6	= 72	= 6 x 12

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If I know… then I also know…

The digit sum of multiples of 6 is 3, 6 or 9

All multiples of 6 are even numbers.

multiple factor product

You CanDo all the multiplication facts of 9.

0 x 9	= 0	= 9 x 0
1 x 9	= 9	= 9 x 1
2 x 9	= 18	= 9 x 2
3 x 9	= 27	= 9 x 3
4 x 9	= 36	= 9 x 4
5 x 9	= 45	= 9 x 5
6 x 9	= 54	= 9 x 6
7 x 9	= 63	= 9 x 7
8 x 9	= 72	= 9 x 8
9 x 9	= 81	= 9 x 9
10 x 9	= 90	= 9 x 10
11 x 9	= 99	= 9 x 11
12 x 9	= 108	= 9 x 12

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The digit sum of multiples of 9 is 9

An odd number multiplied by 9 gives an odd product.

An odd number multiplied by 7 gives an odd product.

An even number multiplied by 7 gives an even product.

You CanDo all the multiplication facts of 7.

0 x 7	= 0	= 7 x 0
1 x 7	= 7	= 7 x 1
2 x 7	= 14	= 7 x 2
3 x 7	= 21	= 7 x 3
4 x 7	= 28	= 7 x 4
5 x 7	= 35	= 7 x 5
6 x 7	= 42	= 7 x 6
7 x 7	= 49	= 7 x 7
8 x 7	= 56	= 7 x 8
9 x 7	= 63	= 7 x 9
10 x 7	= 70	= 7 x 10
11 x 7	= 77	= 7 x 11
12 x 7	= 84	= 7 x 12

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$64 \times 0 = 0$
The product of a number and zero is zero.

$64 \times 1 = 64$
The product of a number and 1 is the number itself.

$64 \div 1 = 64$
The quotient when dividing a number by 1 is the number itself.
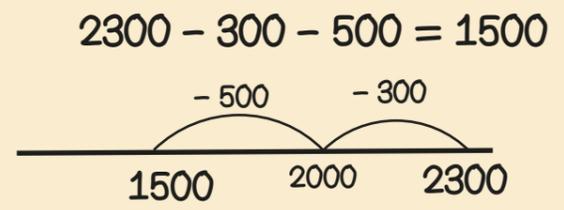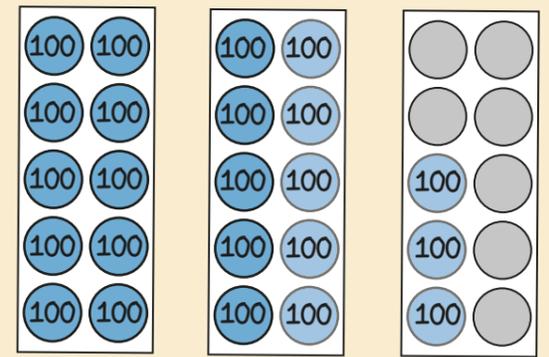
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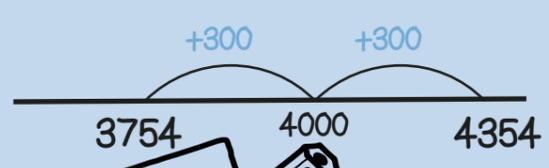---

2997 + 6
Bridging boundaries

+3   +3

2997   3000   3003
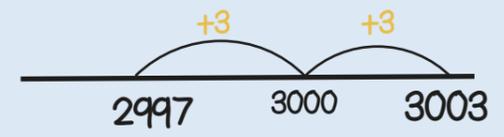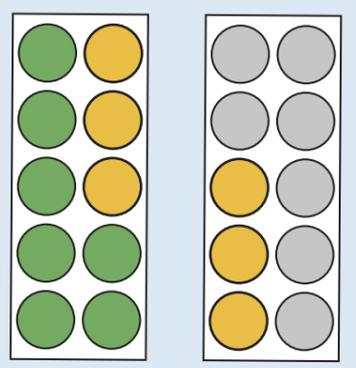
If I know
$7 + 6 = 13$
then…

2300 – 800
Bridging boundaries by counting back in efficient steps

$2300 - 300 - 500 = 1500$

– 500   – 300

1500   2000   2300

3754 + 600
Add multiples of ten and a hundred

1000s   100s   10s   1s

+300   +300

3754   4000   4354
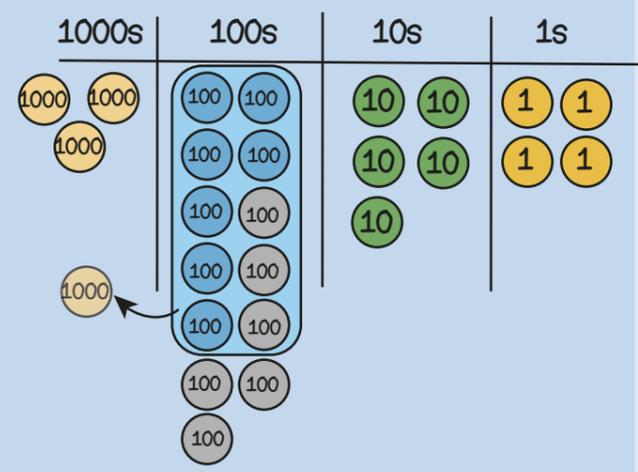
total difference ones tens hundreds thousands

3995 – 4007
Find the difference between two numbers

4007	
3995	12
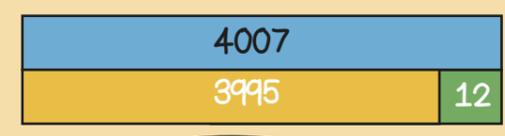
Count on 5 from 3995 to 4000, then 7 more so the difference between them is $5 + 7 = 12$

+5   +7

3975   4000   4007
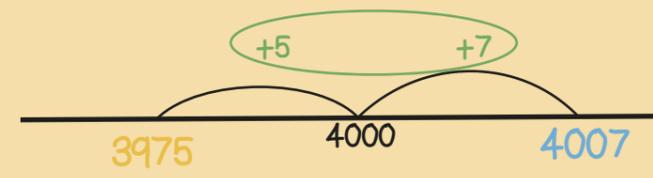
3452 + 1999
Round then adjust

1000s   100s   10s   1s
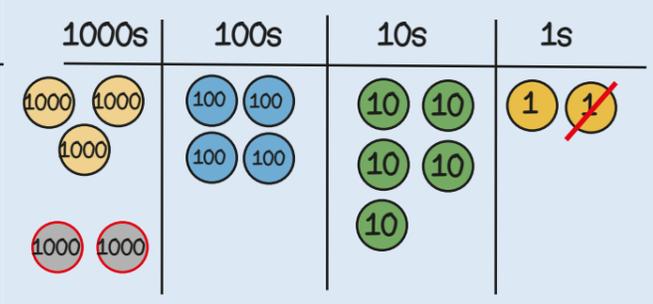
Add 2000 then subtract 1

+2000
–1

3452   5451   5452
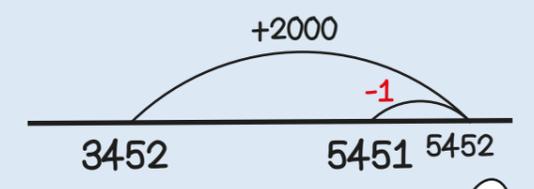
Stop and Look! What do you notice? What's the most efficient way?

5451 – 1999
Round then adjust

1000s   100s   10s   1s

Take away 2000 then add 1

– 2000
+1

3451   3452   5451

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If I know... then I also know...

If the digits are the same then a 2-digit number is divisible by 11

An odd number multiplied by 11 gives an odd product.

multiple factor product

A number is divisible by 12 if it is divisible by 3 and 4

All multiples of 12 are even numbers.

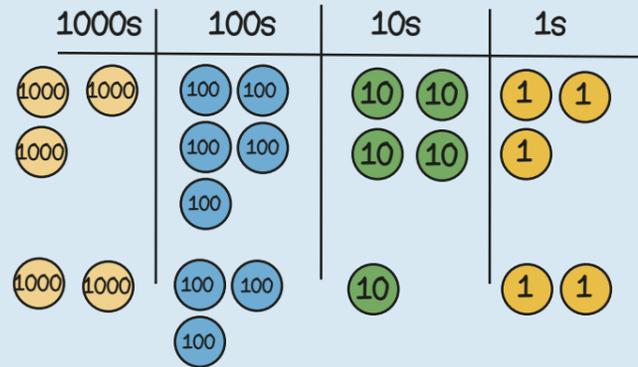12 6
72

$12 \times 6 = 72$ $6 \times 12 = 72$
$72 = 12 \times 6$ $72 = 6 \times 12$
$72 \div 12 = 6$ $72 \div 6 = 12$
$6 = 72 \div 12$ $12 = 72 \div 6$

If I know... then I also know...

$5 \times 2 \times 6 = 60 = 6 \times 2 \times 5$

$5 \times 2 \times 6$ $5 \times 2 \times 6$ $5 \times 2 \times 6$
$= 10 \times 6$ $= 5 \times 12$ $= 2 \times 30$
$= 60$ $= 60$ $= 60$

Year 4 Term 3

3543 + 2312 — No regrouping

| 1000s | 100s | 10s | 1s |

$$\begin{array}{r} 3\ 5\ 4\ 3 \\ +\ 2\ 3\ 1\ 2 \\ \hline 5\ 8\ 5\ 5 \end{array}$$

$3 + 2 = 5$
$4 + 1 = 5$
$5 + 3 = 8$
$3 + 2 = 5$

3544 + 2318 — Regrouping the ones

| 1000s | 100s | 10s | 1s |
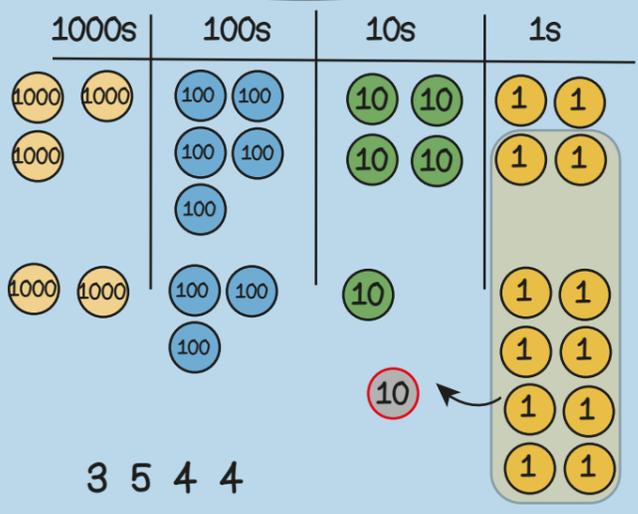
$$\begin{array}{r} 3\ 5\ 4\ 4 \\ +\ 2\ 3\ 1\ 8 \\ \hline 5\ 8\ 6\ 2 \\ 1 \end{array}$$

Regroup the 12 ones into 1 ten and 2 ones

3544 + 2658 — Regrouping in multiple columns

| 1000s | 100s | 10s | 1s |
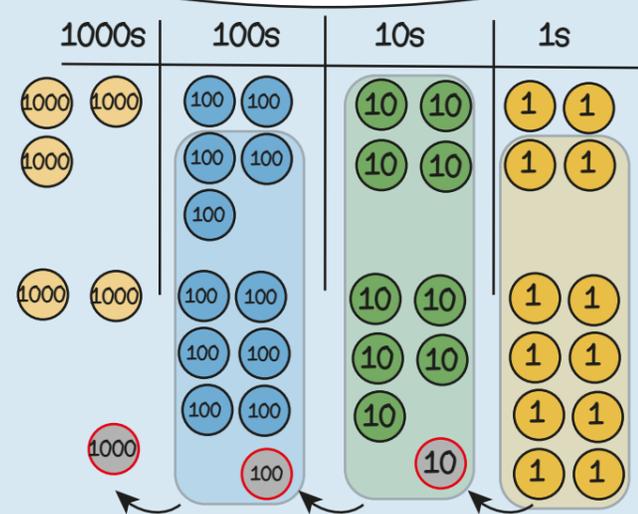
$$\begin{array}{r} 3\ 5\ 4\ 4 \\ +\ 2\ 6\ 5\ 8 \\ \hline 6\ 2\ 0\ 2 \\ 1\ 1\ 1 \end{array}$$

If the column sum is equal to ten or more, we must regroup.

regroup exchange ones tens hundreds thousands

Stop and Look! What do you notice? Where will we regroup or exchange?

3543 − 1216 — Exchanging tens

| 1000s | 100s | 10s | 1s |
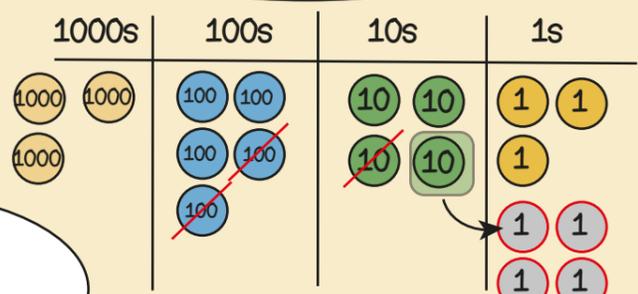
$$\begin{array}{r} 3\ 5\ 3\!\!\not{4}\,^{3}\ 3 \\ -\ 1\ 2\ 1\ 6 \\ \hline 2\ 3\ 2\ 7 \end{array}$$

If the ones digit in the minuend is less than the ones digit in the subtrahend, I need to exchange 1 ten for 10 ones.
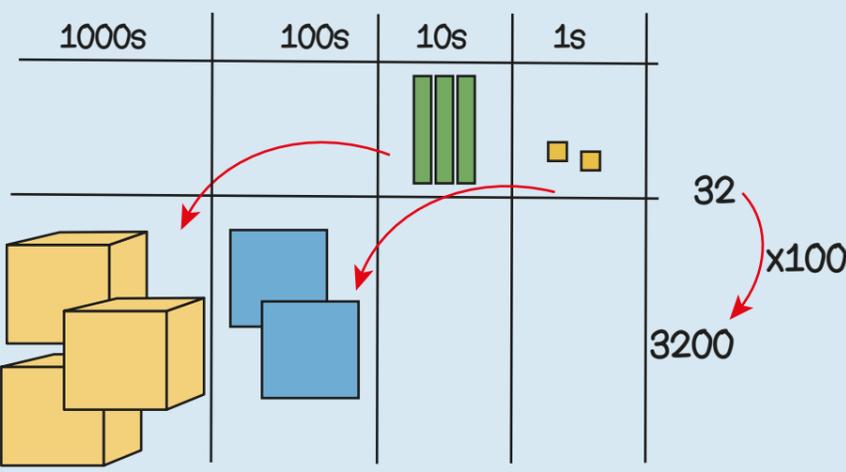
3343 − 1756 — Exchanging in multiple columns

| 1000s | 100s | 10s | 1s |

$$\begin{array}{r} ^{2}\not{3}\ ^{12}\!\not{3}\ ^{13}\!\not{4}\,^{1}\ 3 \\ -\ 1\ 7\ 5\ 6 \\ \hline 1\ 5\ 8\ 7 \end{array}$$

3543 − 835 — Different numbers of digits

$$\begin{array}{r} ^{2}\not{3}\,^{1}\ ^{3}\not{5}\,^{1}\ ^{3}\!\not{4}\ 3 \\ -\ \ \ 8\ 3\ 5 \\ \hline 2\ 5\ 0\ 8 \end{array}$$

Line up the ones with the ones, the tens with the tens.

Year 4 Term 4

Top left panel

1000s	100s	10s	1s

32 ×100 → 3200

3000 is one hundred times greater than 30
2 multiplied by one hundred is 200

Top middle panel
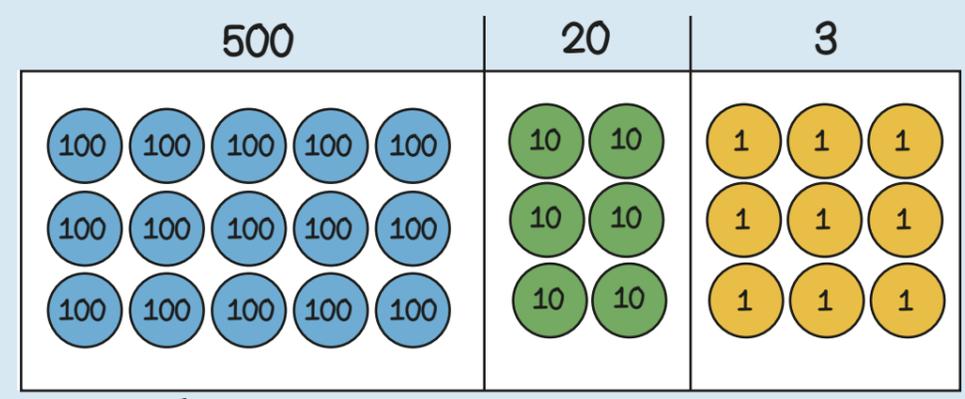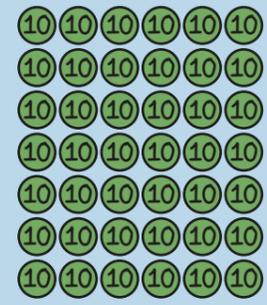
70 x 6 = ?
If I know 7 x 6 = 42
then I know 70 x 6 = 420
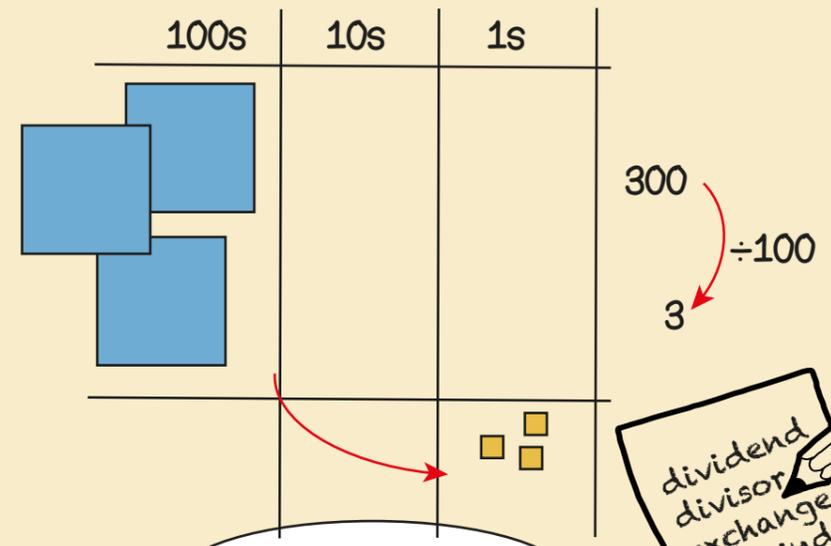because it is ten times greater

7 x 6 = 42

7 x 10 x 6
= 42 x 10
= 420
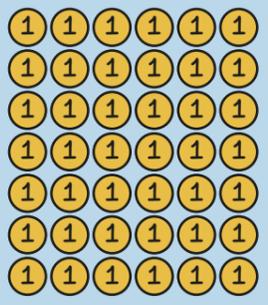
70 x 6 = 420
7 x 60 = 420

multiplier
product
regroup

Top right panel

500	20	3

$$523 \times 3 = 1569$$

Middle left panel

100s	10s	1s

300 ÷100 → 3

3 is one hundred times smaller than 300

Middle centre panel

252 ÷ 6
= 240 ÷ 6 + 12 ÷ 6
= 40 + 2
= 42

If I know 24 ÷ 6 = 4
then I also know
240 ÷ 6 = 40

252
240   12

dividend
divisor
exchange
remainder
quotient

40 x 6   2 x 6

0   240   252

Middle right panel

426 ÷ 3

$$3 \overline{| 4\,^1 2\,6}\; = 142$$

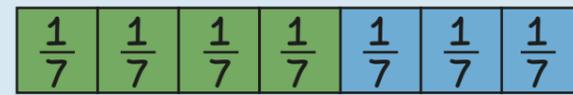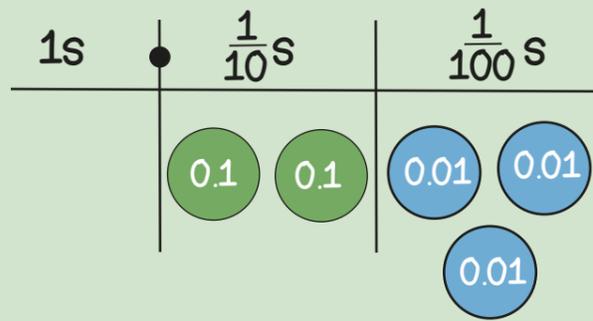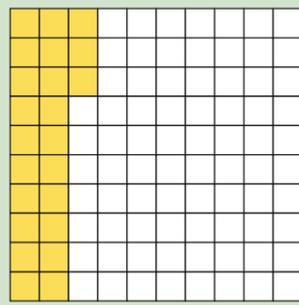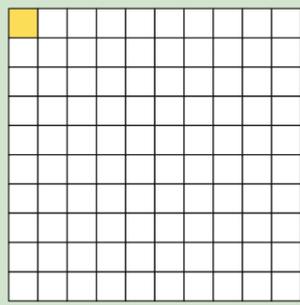| 100s	10s	1s

Bottom green panel
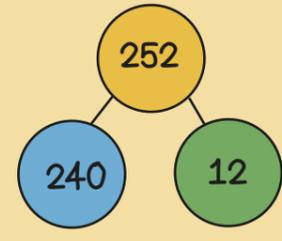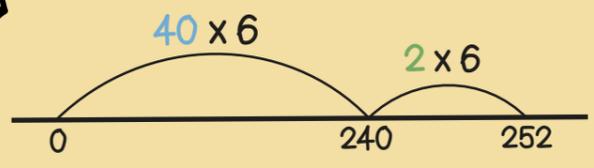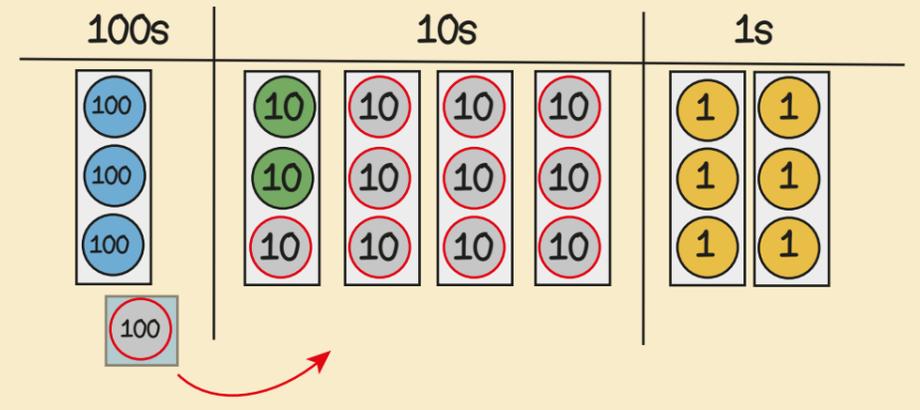
An acute angle is smaller than a right angle

An obtuse angle is greater than a right angle

angle
acute
obtuse
right angle

obtuse angle
acute angle   acute angle
obtuse angle   acute angle
acute angle   obtuse angle

Smallest angle   Largest angle

The greater the amount of turn
the larger the angle

Can Do Maths

Year 4 Term 5

one hundredth
one out of 100 equal parts
one divided by one hundred

$\frac{1}{100} = 0.01$

1s | $\frac{1}{10}$s | $\frac{1}{100}$s

$\frac{23}{100} = 0.23$

0.17 0.18 0.19 0.2 0.21 0.22 0.23

10s | 1s | $\frac{1}{10}$s | $\frac{1}{100}$s

$23 \div 10 = 2.3$
move digits 1 place right

$23 \div 100 = 0.23$
move digits 2 places right

1s | $\frac{1}{10}$s | $\frac{1}{100}$s

1s | $\frac{1}{10}$s | $\frac{1}{100}$s

$0.21 > 0.19$

$1.23 < 1.25$

3.5 rounded to the nearest whole number is 4

3   3.5   4   4.4   4.5   5

4.4 rounded to the nearest whole number is 4

decimal
tenth
hundredth
column
round

$\frac{4}{7} + \frac{5}{7} = \frac{9}{7}$

When adding fractions with the same denominators the denominator stays the same, just add the numerators.
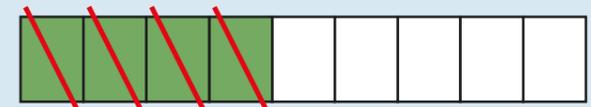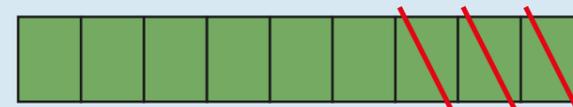
$\frac{13}{9} - \frac{7}{9} = \frac{6}{9}$

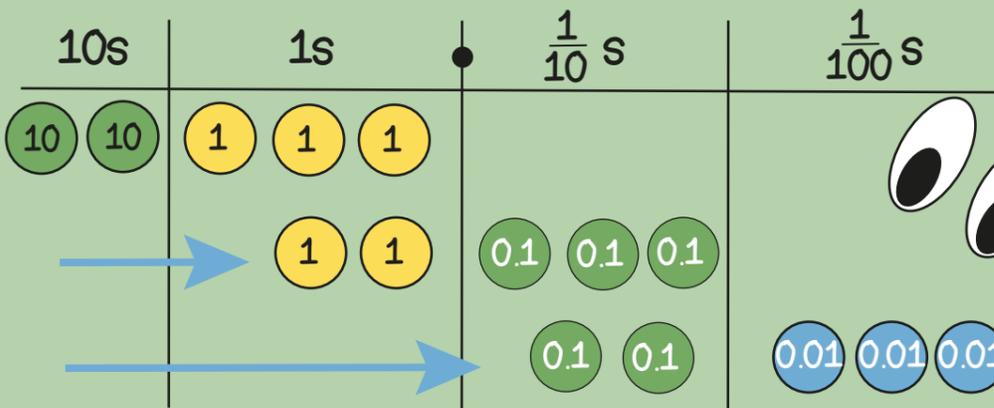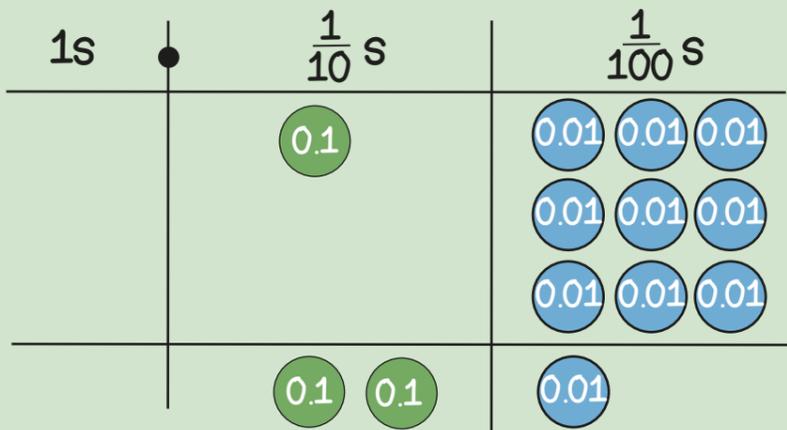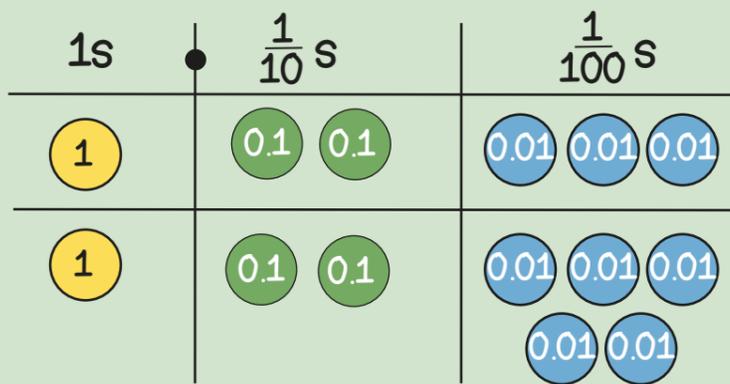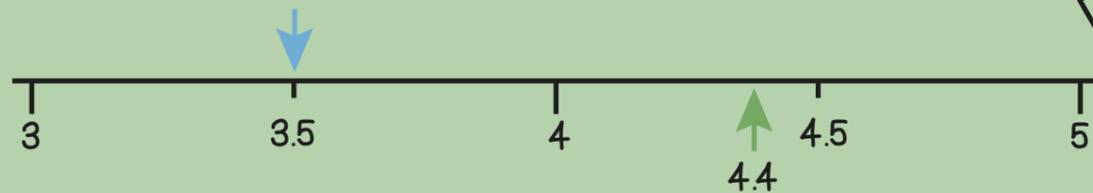When subtracting fractions with the same denominators the denominator stays the same, just subtract the numerators.

18
3 3 3 3 3 3
$\frac{1}{6}$ of 18 = 3
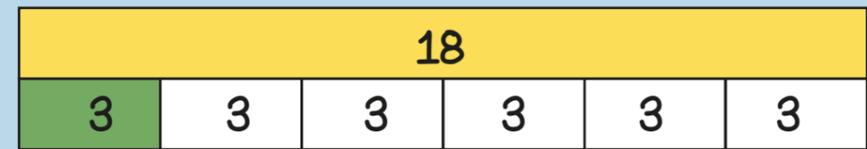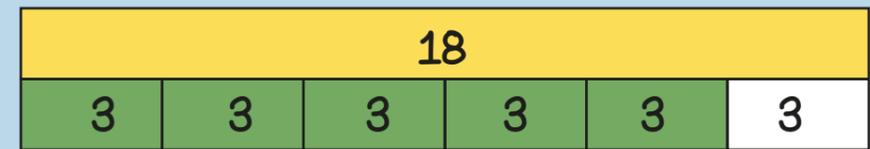
18
3 3 3 3 3 3
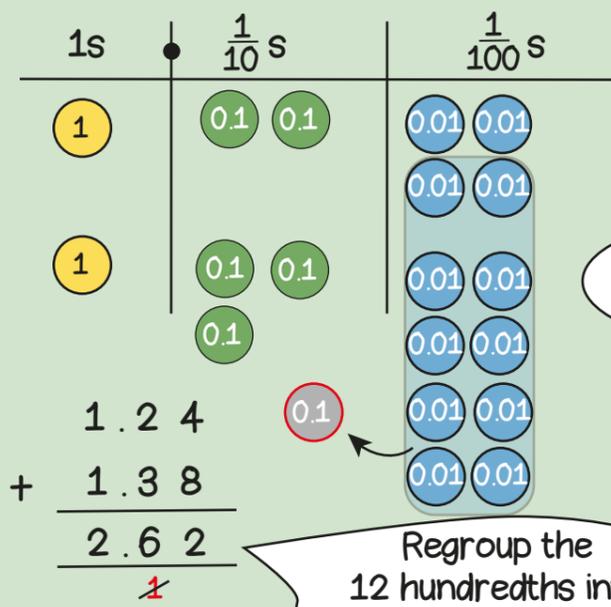$5 \times 3 = 15$
$\frac{5}{6}$ of 18 = $5 \times 3 = 15$

$\frac{1}{3} = \frac{3}{9}$ (x3)

$\frac{1}{3} = \frac{2}{6} = \frac{4}{12}$ (x2) (x2) (x4)

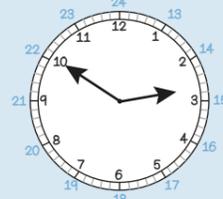Use the same multiplier on the numerator and denominator.

Can Do Maths

Place value columns (top left)

1s | $\frac{1}{10}$s | $\frac{1}{100}$s

$$
\begin{array}{r}
1.24 \\
+\ 1.38 \\
\hline
2.62 \\
\end{array}
$$

Exchange 1 tenth for 10 hundredths
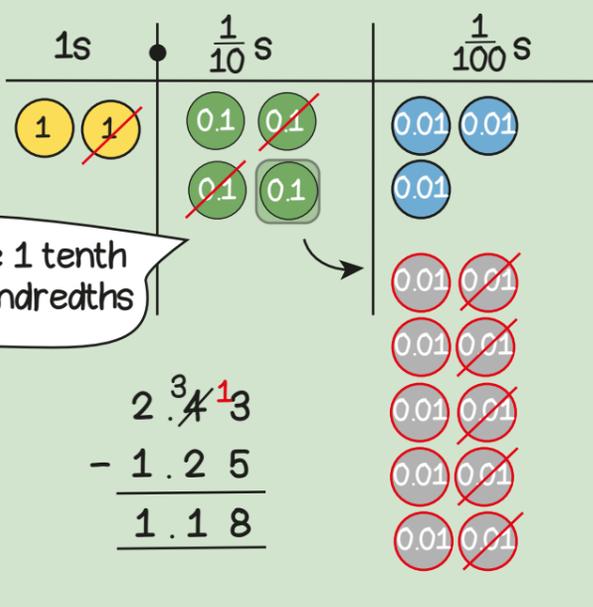
Regroup the 12 hundredths into 1 tenth and 2 hundredths

1s | $\frac{1}{10}$s | $\frac{1}{100}$s

$$
\begin{array}{r}
2.\overset{3}{\cancel{4}}{}^{1}3 \\
-\ 1.25 \\
\hline
1.18 \\
\end{array}
$$

Mental calculations

$0.54 + 0.32 = ?$

If I know $54 + 32 = 86$
then I know
54 hundredths + 32 hundredths
= 86 hundredths
so ...
$0.54 + 0.32 = 0.86$

I can calculate these mentally!

$0.9 - 0.4 = ?$

If I know $9 - 4 = 5$
then I know
9 tenths – 4 tenths = 5 tenths
so ...
$0.9 - 0.4 = 0.5$

regroup exchange ones tenths hundredths

Year 4 Term 6

Time / units

10 to 3 in the morning
2:50 a.m.
02:50

10 to 3 in the afternoon
2:50 p.m.
14:50

24 hour digital convert

1 hour = 60 minutes
so 4 hours = 240 minutes

0 60 120 240 300 480 600
0   1   2   3   4   5   6   7   8   9   10

1 year = 52 weeks
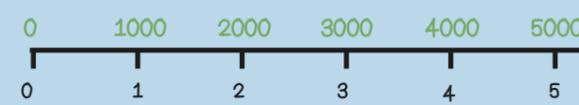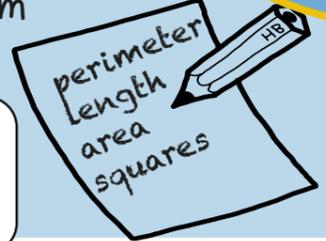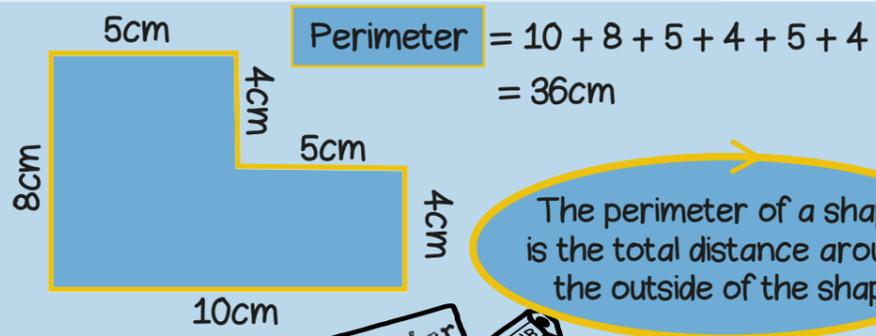so 5 years = 260 weeks

0 52 104 208 260 416 520
0   1   2   3   4   5   6   7   8   9   10

1 week = 7 days
so 4 weeks = 4 x 7 = 28 days

1 kilometre = 1000 metres
1 kilogram = 1000 grams
1 litre = 1000 millilitres

0 1000 2000 3000 4000 5000
0   1   2   3   4   5

Perimeter and area

5cm, 4cm, 5cm, 4cm, 8cm, 10cm

Perimeter = 10 + 8 + 5 + 4 + 5 + 4
= 36cm

The perimeter of a shape is the total distance around the outside of the shape

perimeter length area squares
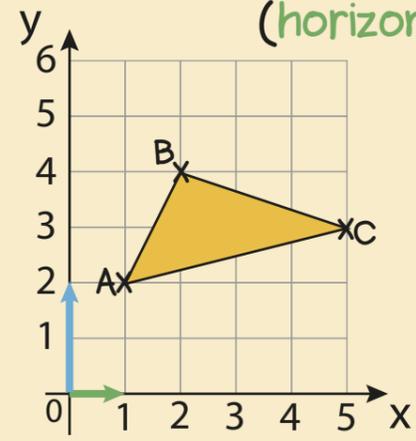
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

Area = 20 squares

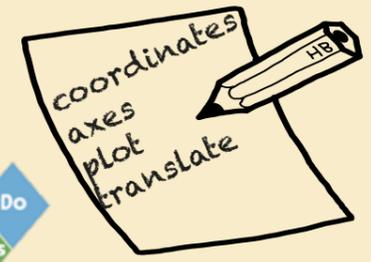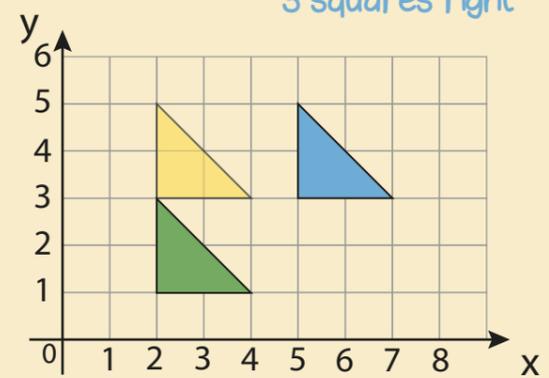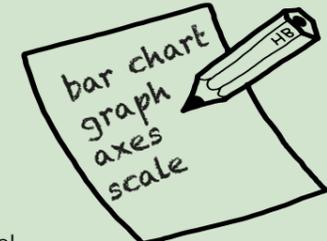The area of a shape is the amount of space inside a shape.
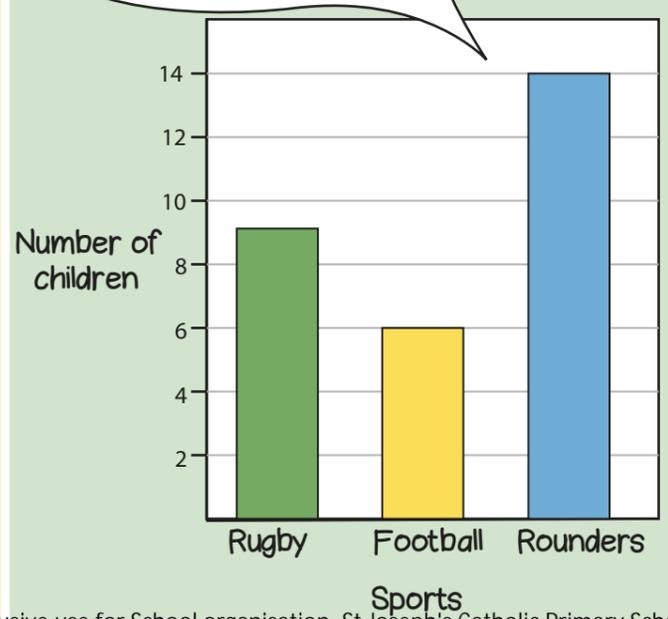
Coordinates
(horizontal, vertical)

The coordinates of the points are:
A = (1, 2)
B = (2, 4)
C = (5, 3)

Translate the triangle
2 squares up and
3 squares right

coordinates axes plot translate

Bar chart

$14 - 9 = 5$
so 5 more children like rounders than rugby

Number of children

Rugby Football Rounders
Sports

bar chart graph axes scale

Graph to show growth of a sunflower

Height in cm

Number of days
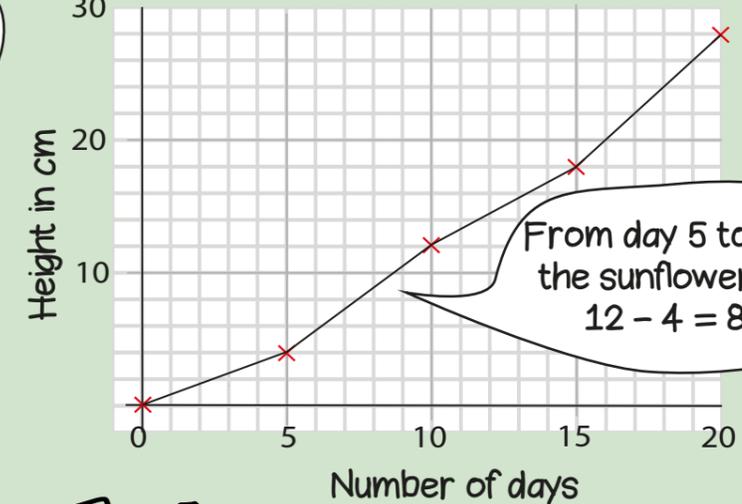
From day 5 to day 10 the sunflower grows
$12 - 4 = 8$ cm