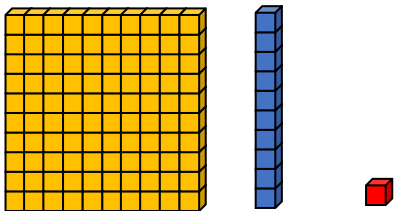


Y3- Number and Place Value



hundred 100 ten 10 one 1

H	T	O
2	9	4
2	0	0
	9	0
		4

$<$ $>$ $=$
 less than more than equal to
 $294 < 300$
 $294 > 200$
 $294 = 200 + 90 + 4$

H	T	O
2	9	4
9	2	4
2	4	9

ascending order:
 249 294 924
 descending order:
 924 294 249

10 less

H	T	O
4	3	5

 10 more
 425 445

100 less

H	T	O
4	3	5

 100 more
 335 535

two hundred and ninety-four

- 1 one
- 2 two
- 3 three
- 4 four
- 5 five
- 6 six
- 7 seven
- 8 eight
- 9 nine

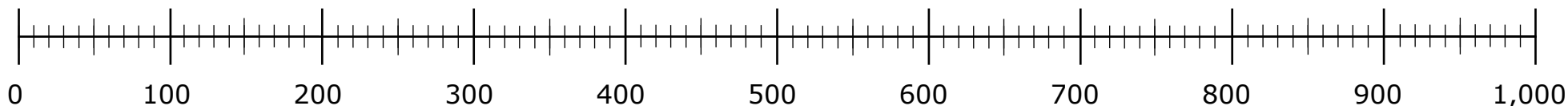
- 11 eleven
- 12 twelve
- 13 thirteen
- 14 fourteen
- 15 fifteen
- 16 sixteen
- 17 seventeen
- 18 eighteen
- 19 nineteen

- 10 ten
- 20 twenty
- 30 thirty
- 40 forty
- 50 fifty
- 60 sixty
- 70 seventy
- 80 eighty
- 90 ninety

Multiples of 4: 4, 8, 12, 16, 20, 24, 30, 36, 40, 44, 48
Multiples of 8: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96
Multiples of 50: 50, 100, 150, 200, 250, 300, 350, 400, 450, 500
Multiples of 100: 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000

Numbers between from 21-99 need hyphens unless they are multiples of ten:

fifty-three
twenty-two



column addition

	H	T	O
	5	7	8
+	3	5	1
	9	2	9
	1		

column subtraction

	H	T	O
	4 ⁵	1 ²	8
-	3	5	1
	1	7	7

estimating answers

$$434 + 295$$

Rounded to the nearest thousand: $400 + 300 = 700$

The answer should be approximately 700

$$434 + 295 = 729$$

using the inverse operation to check answers

$$434 + 295 = 729$$

'inverse' means opposite, so check by subtracting one part from the whole.

729	
434	295

$$729 - 434 = 295$$

mentally add and subtract

a three-digit number and ones

$$434 + 5 = 439$$

$$434 - 3 = 431$$

a three-digit number and tens

$$464 + 30 = 494$$

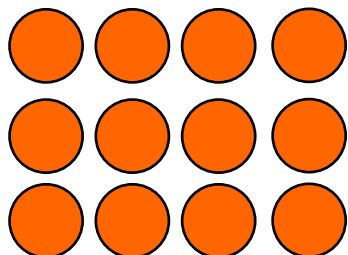
$$464 - 40 = 424$$

a three-digit number and hundreds

$$743 + 200 = 943$$

$$743 - 300 = 443$$

write mathematical statements



$3 \times 2 = 6$

$2 \times 3 = 6$

$6 \div 3 = 2$

$6 \div 2 = 3$

known facts

$3 \times 20 = 60$

$2 \times 30 = 60$

$60 \div 3 = 20$

$60 \div 2 = 30$

short division

	2	3		
4	9	2		
	1			

$92 \div 4 = 23$

dividend divisor quotient

multiplication strategies

34×8

$30 \times 8 = 240$
 $4 \times 8 = 32$

$240 + 32 = 272$

x	30	4
8	240	32

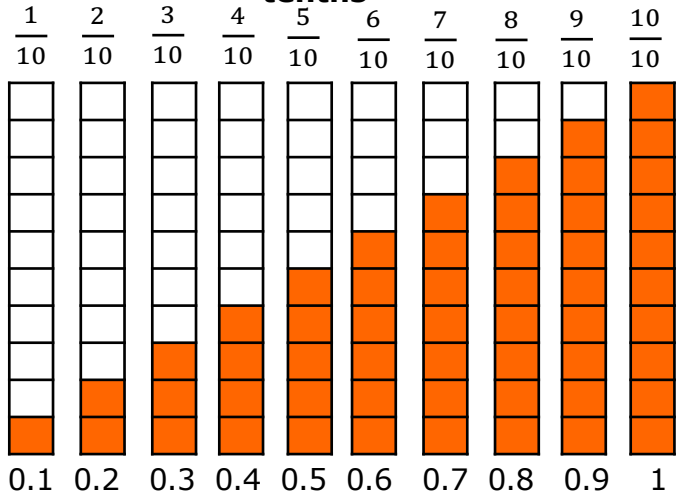
short multiplication

		3	4
x			8
<hr/>			
	2	7	2
<hr/>			
		3	

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Y3- Fractions

tenths



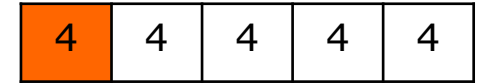
tenths are found by dividing a number by 10

H	T	O	•	$\frac{1}{10}$
		2		
		0	•	2

2 divided by 10 is equal to $\frac{2}{10}$

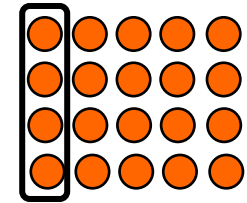
fractions of numbers

$\frac{1}{5}$ of 20



$$20 \div 5 = 4$$

$$\frac{1}{5} \text{ of } 20 = 4$$



fractions of numbers

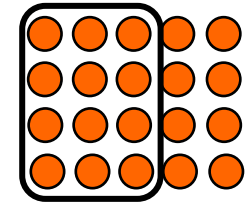
$\frac{3}{5}$ of 20



$$20 \div 5 = 4$$

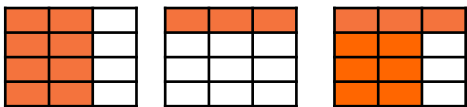
$$4 \times 3 = 12$$

$$\frac{3}{5} \text{ of } 20 = 12$$



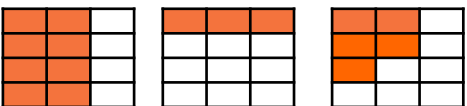
adding fractions with the same denominators

$$\frac{8}{12} + \frac{3}{12} = \frac{11}{12}$$

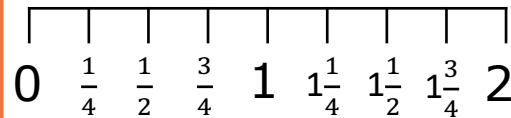


subtracting fractions with the same denominators

$$\frac{8}{12} - \frac{3}{12} = \frac{5}{12}$$

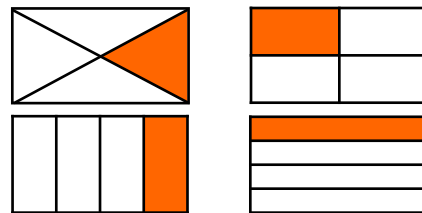


fractions on a number line



fractions of shapes

$\frac{1}{4}$



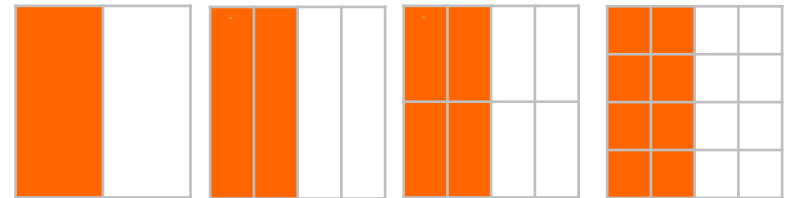
equivalent fractions

$\frac{1}{2}$

$\frac{2}{4}$

$\frac{4}{8}$

$\frac{8}{16}$



units of measure

length

Length is measured in mm, cm and m.
There are 10 mm in 1 cm and 100 cm in one m.

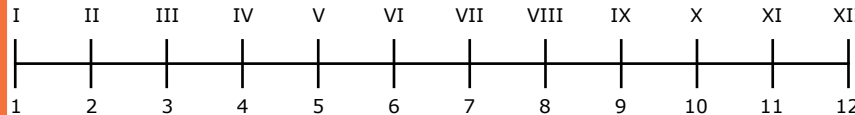
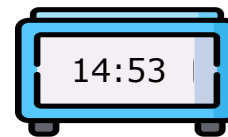
mass

Mass is measured in g and kg.
There are 1,000 g in one kg.

volume/capacity

Volume/ capacity is measured in ml and l.
There are 1,000 ml in one l.

analogue and digital clock



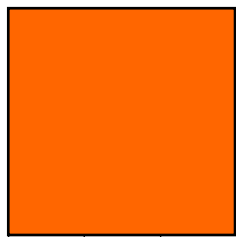
add and subtract amounts of money

£3 and 20 p + £4 and 30p

£3 + £4 = £7 20 p + 30 p = 50p

Total: £7 and 50 p

Measuring the perimeter of 2D shapes



Perimeter is the distance around the edge of a 2D shape. The perimeter of this square is 12 cm.



When using a ruler, make sure that the line starts from zero.

convert units of time

60 seconds = 1 minute

60 minutes = 1 hour

24 hours = 1 day

7 days = 1 week

12 months = 1 year

365 days = 1 year

30 days have **September, April, June and November.**

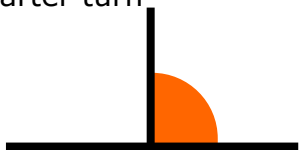
All the rest have **31**, except for February (the one which only has 28 days clear, and 29 in each leap year)

12 hour	24 hour
1:00 am	1:00
2:00 am	2:00
3:00 am	3:00
4:00 am	4:00
5:00 am	5:00
6:00 am	6:00
7:00 am	7:00
8:00 am	8:00
9:00 am	9:00
10:00 am	10:00
11:00 am	11:00
12:00 pm	12:00
1:00 pm	13:00
2:00 pm	14:00
3:00 pm	15:00
4:00 pm	16:00
5:00 pm	17:00
6:00 pm	18:00
7:00 pm	19:00
8:00 pm	20:00
9:00 pm	21:00
10:00 pm	22:00
11:00 pm	23:00
12:00 pm	00:00

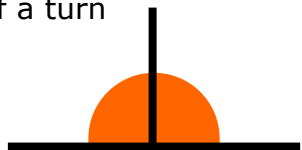
angles

Angles are a description of turn.

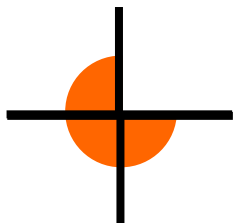
A right angle makes a quarter turn



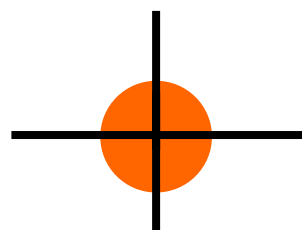
Two right angles make half a turn



Three right angles make three quarters of a turn



Four right angles make a complete turn



types of lines

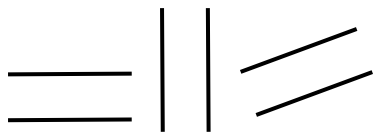


vertical line

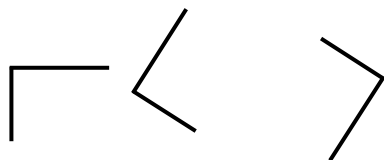


horizontal line

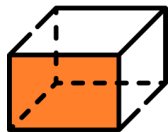
parallel lines
lines that stay the same distance apart



perpendicular lines
lines that meet at a right angle



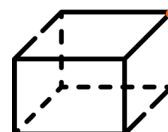
properties of 3D shapes



face
the flat surface of a 3D shape



edge
where two faces on a shape meet



vertex (plural: vertices)
a point or corner where edges meet

properties of 2D shapes



side
a line that joins two vertices



angle (sometimes vertex/vertices or corner)
where two sides meet

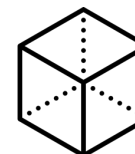
3D shapes



tetrahedron
4 triangular faces
6 edges
4 vertices



square-based pyramid
5 faces
8 edges
5 vertices



cube
6 square faces
12 edges
8 vertices



cuboid
6 faces
12 edges
8 vertices



cone
1 circular face
1 curved surface
1 curved edge
1 apex



cylinder
2 circular faces
1 curved surface
2 curved edges
0 vertices



triangular prism
5 faces
9 edges
6 vertices

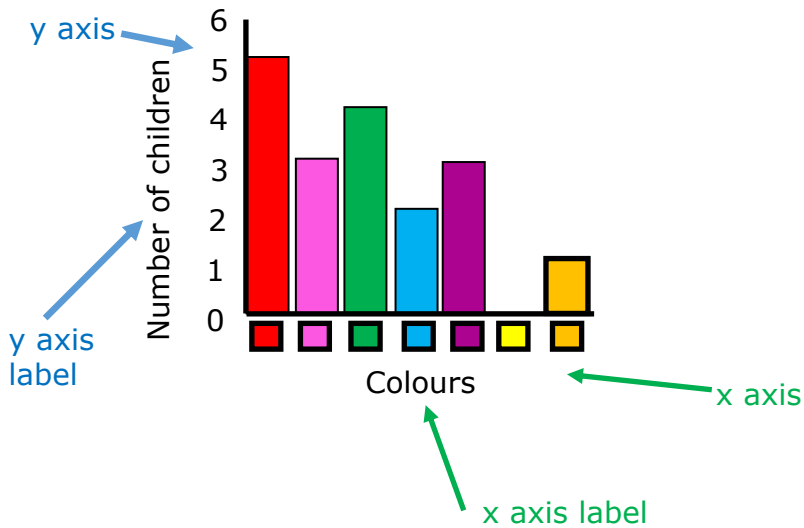


sphere
1 curved surface
0 edges
0 vertices

bar graphs

Bar graphs show a snapshot in time

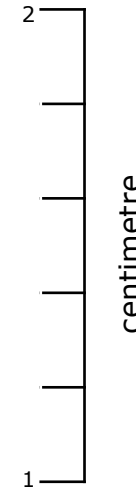
Graph showing the favourite colours in year 6



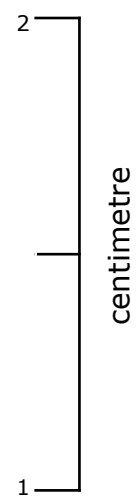
understanding scales



The intervals here show each mm



The intervals here show every 2 mm



The intervals here show every 5 mm

pictogram

team	points
Green	4 circles (3 full, 1 half)
Blue	3 circles
Red	5 circles (4 full, 1 half)

Key

= 10 points

table

hockey	tennis	football	rugby	total
21	41	16	22	100

If one part is missing, add the other parts together and subtract them from the total.

hockey	tennis	football	rugby	total
21	41		22	100

If the total is missing, add the parts together.

hockey	tennis	football	rugby	total
21	41	16	22	