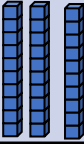

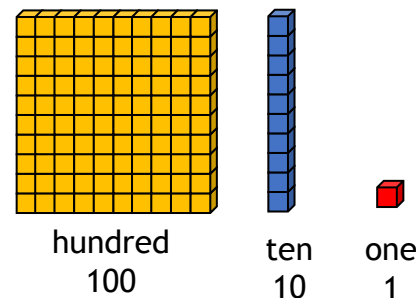


Y2- Number and Place Value

<	>	=
less than	more than	equal to
94 < 90		
94 > 100		
94 = 90 + 4		

T	O
	
3	1



T	O
9	4
9	0
	4

ninety-four

T	O
9	4
2	4
4	9

ascending order:

24 49 94

descending order:

94 49 24

counting backwards in tens		T	O		counting forwards in tens
		8	5		
		7	5		
		6	5		
		5	5		

1 one	11 eleven	10 ten
2 two	12 twelve	20 twenty
3 three	13 thirteen	30 thirty
4 four	14 fourteen	40 forty
5 five	15 fifteen	50 fifty
6 six	16 sixteen	60 sixty
7 seven	17 seventeen	70 seventy
8 eight	18 eighteen	80 eighty
9 nine	19 nineteen	90 ninety

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

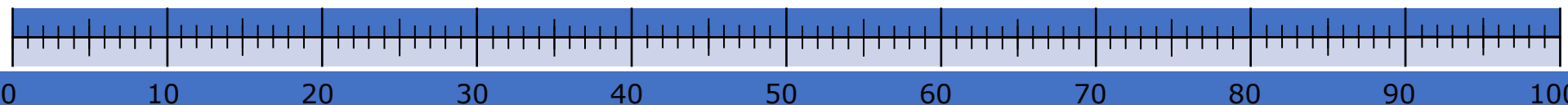
fifty-three
twenty-two

Multiples of 2: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36

Multiples of 5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

Multiples of 10: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120



Y2- Addition and Subtraction

partitioning

43
 $40 + 3$
 $30 + 13$
 $20 + 23$
 $10 + 33$

related facts to 100

If I know that $3 + 4$ is equal to 7, I also know that $30 + 40$ is equal to 70

commutativity

Addition can be done in any order

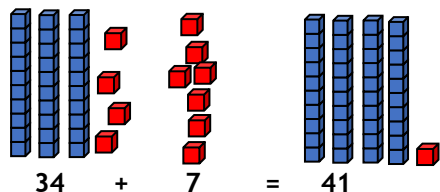
$$3 + 4 = 4 + 3$$

Subtraction can **not** be done in any order

number bonds within 20

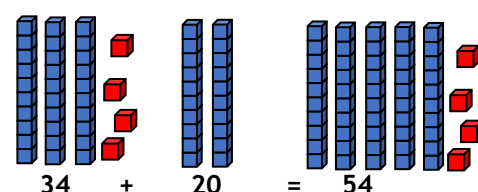
2	3	12	13	14
$0 + 2$ $1 + 1$	$0 + 3$ $1 + 2$	$0 + 12$ $1 + 11$ $2 + 10$	$0 + 13$ $1 + 12$ $2 + 11$	$0 + 14$ $1 + 13$ $2 + 12$
4	5	$3 + 9$ $4 + 8$ $5 + 7$ $6 + 6$	$3 + 10$ $4 + 9$ $5 + 8$ $6 + 7$	$3 + 11$ $4 + 10$ $5 + 9$ $6 + 8$ $7 + 7$
6	7	$0 + 6$ $1 + 5$ $2 + 4$ $3 + 3$	$0 + 7$ $1 + 6$ $2 + 5$ $3 + 4$	
8	9	$0 + 8$ $1 + 7$ $2 + 6$ $3 + 5$ $4 + 4$	$0 + 9$ $1 + 8$ $2 + 7$ $3 + 6$ $4 + 5$	
10	11	$0 + 10$ $1 + 9$ $2 + 8$ $3 + 7$ $4 + 6$ $5 + 5$	$0 + 11$ $1 + 10$ $2 + 9$ $3 + 8$ $4 + 7$ $5 + 6$	
12	13	14	15	16
$0 + 12$ $1 + 11$ $2 + 10$ $3 + 9$ $4 + 8$ $5 + 7$ $6 + 6$	$0 + 13$ $1 + 12$ $2 + 11$ $3 + 10$ $4 + 9$ $5 + 8$ $6 + 7$	$0 + 14$ $1 + 13$ $2 + 12$ $3 + 11$ $4 + 10$ $5 + 9$ $6 + 8$ $7 + 7$	$0 + 15$ $1 + 14$ $2 + 13$ $3 + 12$ $4 + 11$ $5 + 10$ $6 + 9$ $7 + 8$	$0 + 16$ $1 + 15$ $2 + 14$ $3 + 13$ $4 + 12$ $5 + 11$ $6 + 10$ $7 + 9$
15	16	17	18	19
$0 + 15$ $1 + 14$ $2 + 13$ $3 + 12$ $4 + 11$ $5 + 10$ $6 + 9$ $7 + 8$	$0 + 16$ $1 + 15$ $2 + 14$ $3 + 13$ $4 + 12$ $5 + 11$ $6 + 10$ $7 + 9$	$0 + 17$ $1 + 16$ $2 + 15$ $3 + 14$ $4 + 13$ $5 + 12$ $6 + 11$ $7 + 10$ $8 + 9$	$0 + 18$ $1 + 17$ $2 + 16$ $3 + 15$ $4 + 14$ $5 + 13$ $6 + 12$ $7 + 11$ $8 + 10$ $9 + 9$	$0 + 19$ $1 + 18$ $2 + 17$ $3 + 16$ $4 + 15$ $5 + 14$ $6 + 13$ $7 + 12$ $8 + 11$ $9 + 10$
18	19	20		
$0 + 18$ $1 + 17$ $2 + 16$ $3 + 15$ $4 + 14$ $5 + 13$ $6 + 12$ $7 + 11$ $8 + 10$ $9 + 9$	$0 + 19$ $1 + 18$ $2 + 17$ $3 + 16$ $4 + 15$ $5 + 14$ $6 + 13$ $7 + 12$ $8 + 11$ $9 + 10$	$0 + 20$ $1 + 19$ $2 + 18$ $3 + 17$ $4 + 16$ $5 + 15$ $6 + 14$ $7 + 13$ $8 + 12$ $9 + 11$ $10 + 10$		

two-digit number and ones



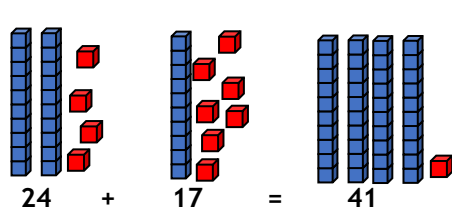
inverse: $41 - 7 = 34$

two-digit number and tens



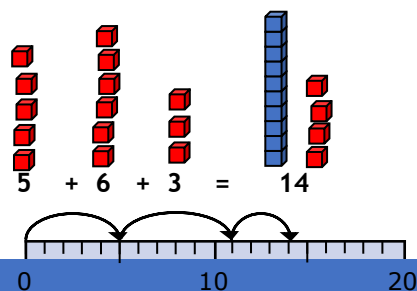
inverse: $54 - 20 = 34$

two two-digit number



inverse: $41 - 17 = 24$

adding three one-digit numbers



inverse and related facts

$3 + 4 = 7$	$30 + 40 = 70$	$300 + 400 = 700$
$4 + 3 = 7$	$40 + 30 = 70$	$400 + 300 = 700$
$7 - 3 = 4$	$70 - 30 = 40$	$700 - 300 = 400$
$7 - 4 = 3$	$70 - 40 = 30$	$700 - 400 = 300$

Y2- Multiplication and Division

Multiples of 2: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36

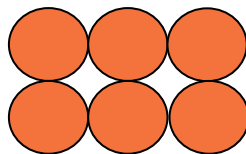
Multiples of 5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

Multiples of 10: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

Multiplication facts for the 2, 5 and 10 times tables

$1 \times 2 = 2$	$1 \times 5 = 5$	$1 \times 10 = 10$
$2 \times 2 = 4$	$2 \times 5 = 10$	$2 \times 10 = 20$
$3 \times 2 = 6$	$3 \times 5 = 15$	$3 \times 10 = 30$
$4 \times 2 = 8$	$4 \times 5 = 20$	$4 \times 10 = 40$
$5 \times 2 = 10$	$5 \times 5 = 25$	$5 \times 10 = 50$
$6 \times 2 = 12$	$6 \times 5 = 30$	$6 \times 10 = 60$
$7 \times 2 = 14$	$7 \times 5 = 35$	$7 \times 10 = 70$
$8 \times 2 = 16$	$8 \times 5 = 40$	$8 \times 10 = 80$
$9 \times 2 = 18$	$9 \times 5 = 45$	$9 \times 10 = 90$
$10 \times 2 = 20$	$10 \times 5 = 50$	$10 \times 10 = 100$
$11 \times 2 = 22$	$11 \times 5 = 55$	$11 \times 10 = 110$
$12 \times 2 = 24$	$12 \times 5 = 60$	$12 \times 10 = 120$

Using a times table fact



3 is half of 6
6 is double 3

30 is half of 60
60 is double 30

$$3 \times 2 = 6$$

$$2 \times 3 = 6$$

$$6 \div 3 = 2$$

$$6 \div 2 = 3$$

$$30 \times 2 = 60$$

$$20 \times 3 = 60$$

$$60 \div 3 = 20$$

$$60 \div 2 = 30$$

$$\frac{1}{2} \text{ of } 6 = 3$$

$$\frac{1}{2} \text{ of } 60 = 30$$

odd numbers

Odd numbers are not divisible by 2. The ones digit in an odd number is 1, 3, 5, 7 or 9

Example:

3**1** 4**5** 6**9**

even numbers

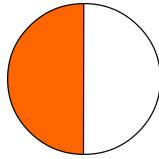
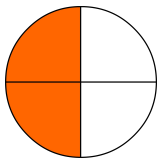
Even numbers are divisible by 2. The ones digit in an even number is 0, 2, 4, 6 or 8

Example:

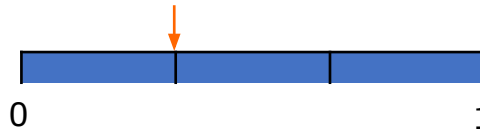
3**2** 1**6** 4**8**

equivalence

$\frac{2}{4}$ is equivalent to $\frac{1}{2}$



one third



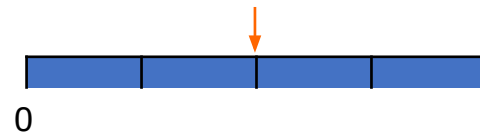
$\frac{1}{3}$ of 6 = 2

one quarter



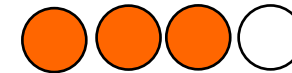
$\frac{1}{4}$ of 8 = 2

two quarters

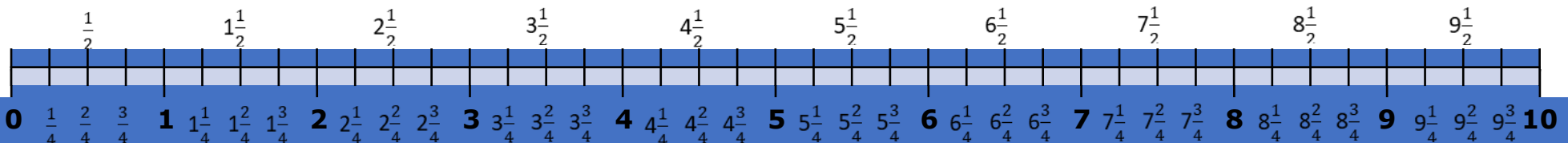


$\frac{2}{4}$ of 8 = 4

three quarters

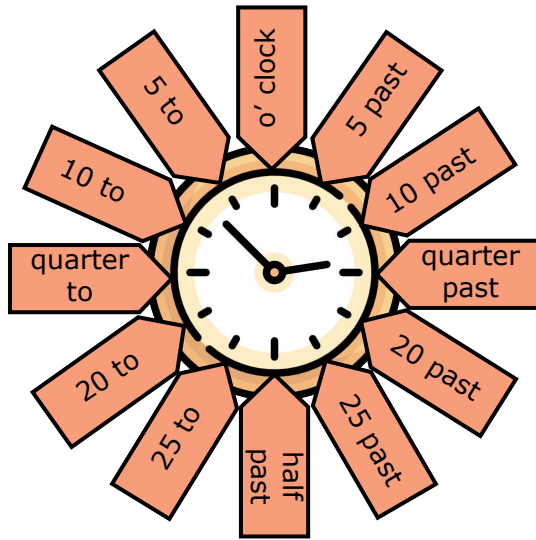


$\frac{3}{4}$ of 8 = 6



Y2- Measurement

time



1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours

different coins



1 p coin



2 p coin



5 p coin



10 p coin



20 p coin



50 p coin



£1 coin



£2 coin



£5 note



£10 note



£20 note



£50 note

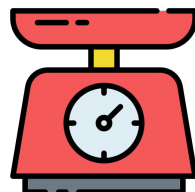
length/ height

measured in metres (m) and
centimetres (cm)



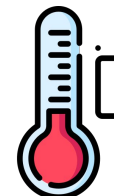
mass

measured in kilograms (kg)
and grams (g)



temperature

measured in degrees
Celsius (°C)

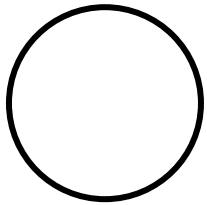


capacity

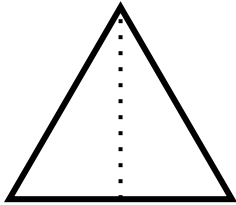
measured in litres (l) and
millilitres (ml)



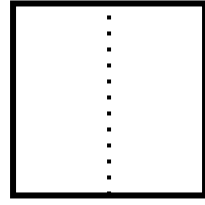
2D shapes



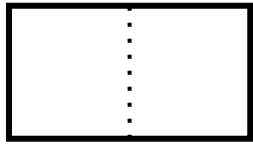
circle
1 curved
side



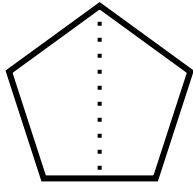
triangle
3 corners
3 sides



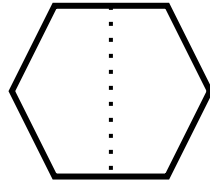
square
4 corners
4 sides



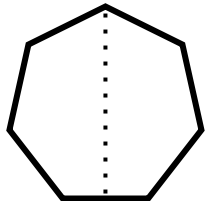
rectangle
4 corners
4 sides



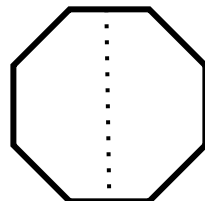
pentagon
5 corners
5 sides



hexagon
6 corners
6 sides

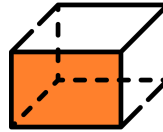


heptagon
7 corners
7 sides

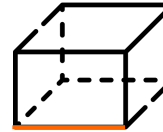


octagon
8 corners
8 sides

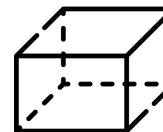
properties of 3D shapes



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

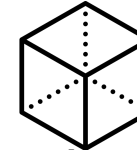
3D shapes



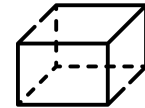
tetrahedron
4 triangular faces
6 edges
4 vertices



**square-based
pyramid**
5 faces
8 edges
5 vertices



cube
6 square faces
12 edges
8 vertices



cuboid
6 faces
12 edges
8 vertices



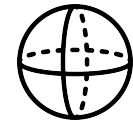
cone
1 circular face
1 curved surface
1 curved edge
1 apex



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

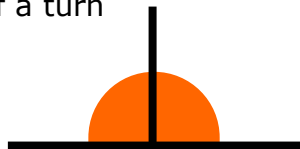
angles

Angles are a description of turn.

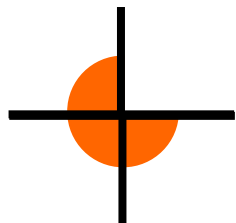
A right angle makes a quarter turn



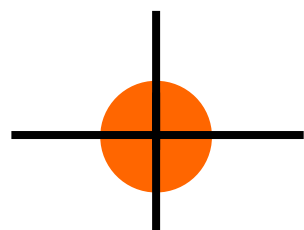
Two right angles make half a turn



Three right angles make three quarters of a turn

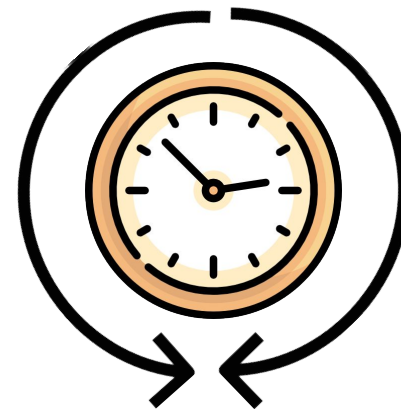


Four right angles make a complete turn



direction of turn

anticlockwise



clockwise

patterns and sequences



Find where the pattern starts to repeat. Continue the pattern from there.



tally chart

team	points	
Green		25
Blue		27
Red		13

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.

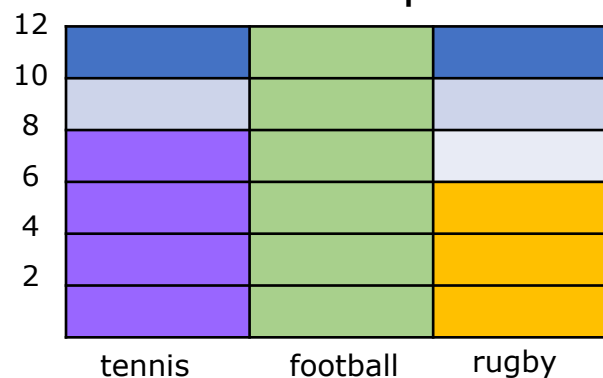
hockey	tennis	football	rugby	total
21	41		22	100

If the total is missing, add the parts together.

hockey	tennis	football	rugby	total
21	41	16	22	

block diagram

favourite sports



favourite sports

tennis	8
football	12
rugby	6

pictogram

team	points	
Green		35
Blue		30
Red		45

Key



= 10 points