

Year 2

2/1 Know the 2, 3, 5, 10 times tables

0	x	2	=	0
1	x	2	=	2
2	x	2	=	4
3	x	2	=	6
4	x	2	=	8
5	x	2	=	10
6	x	2	=	12
7	x	2	=	14
8	x	2	=	16
9	x	2	=	18
10	x	2	=	20
11	x	2	=	22
12	x	2	=	24

0	x	5	=	0
1	x	5	=	5
2	x	5	=	10
3	x	5	=	15
4	x	5	=	20
5	x	5	=	25
6	x	5	=	30
7	x	5	=	35
8	x	5	=	40
9	x	5	=	45
10	x	5	=	50
11	x	5	=	55
12	x	5	=	60

0	x	10	=	0
1	x	10	=	10
2	x	10	=	20
3	x	10	=	30
4	x	10	=	40
5	x	10	=	50
6	x	10	=	60
7	x	10	=	70
8	x	10	=	80
9	x	10	=	90
10	x	10	=	100
11	x	10	=	110
12	x	10	=	120

0	x	3	=	0
1	x	3	=	3
2	x	3	=	6
3	x	3	=	9
4	x	3	=	12
5	x	3	=	15
6	x	3	=	18
7	x	3	=	21
8	x	3	=	24
9	x	3	=	27
10	x	3	=	30
11	x	3	=	33
12	x	3	=	36

Count in 10s

tens	ones
3	7

tens	ones
2	8

Counting up in tens this digit changes:

37 47 57 67 77 87

2/2 Place value

tens	ones
2	8

28 means **2 tens** and **8 ones**
20 and **8**

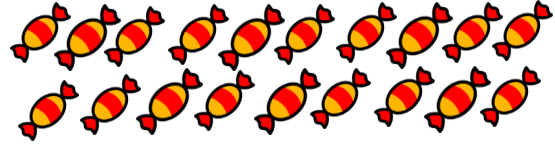
2/3 Estimate numbers

- **Eyeball estimate**



Here are 3

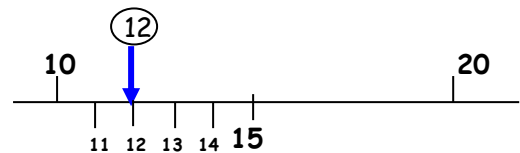
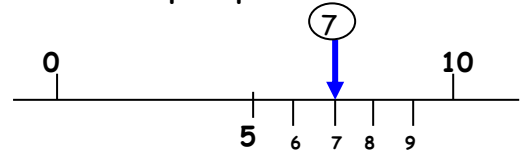
Use this to estimate larger amounts



- **Estimate on a number line**

Fill in the half way number first

Then split up the half with the arrow



2/4 Order numbers

Tens	Ones
3	7
3	2
7	6
6	2



- ♦ Begin at the tens and compare

76 is the biggest

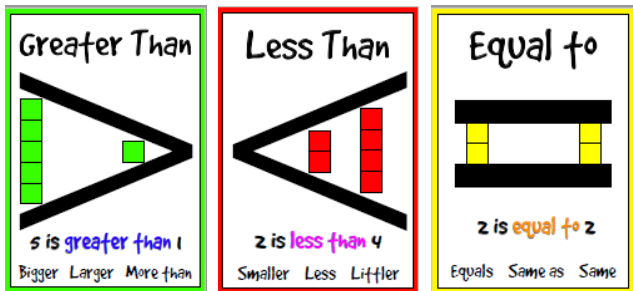
62 is next biggest

Tens	Ones
3	7
3	2
7	6
6	2

- ♦ Move to the ones and compare

Order is: 76 62 37 32

2/4 (continued) Inequality symbols



We say: 9 is greater than 5

We write: 9 > 5

We say: 5 is less than 9

We write: 5 < 9

2/5 Numbers in figures and words

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

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

20 twenty
21 twenty one
22 twenty two
23 twenty three
24 twenty four
25 twenty five
26 twenty six
27 twenty seven
28 twenty eight
29 twenty nine

30 thirty
40 forty
50 fifty
60 sixty
70 seventy
80 eighty
90 ninety
100 one hundred

2/6 Addition & subtraction problems

Words for ADD

altogether

sum of

total

plus

Words for SUBTRACT

take away

how many left?

difference

how many more?

how many less?

2/7 Addition facts to 10

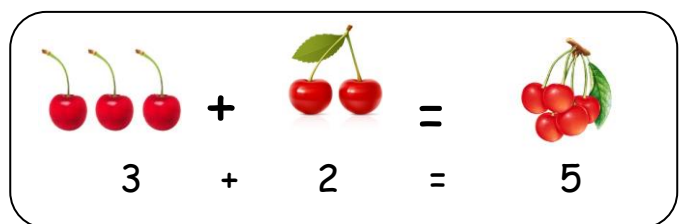
10	9	8	7	6	5	4	3	2	1
9	8	7	6	5	4	3	2	1	0
8	7	6	5	4	3	2	1	0	9
7	6	5	4	3	2	1	0	9	8
6	5	4	3	2	1	0	9	8	7
5	4	3	2	1	0	9	8	7	6
4	3	2	1	0	9	8	7	6	5
3	2	1	0	9	8	7	6	5	4
2	1	0	9	8	7	6	5	4	3
1	0	9	8	7	6	5	4	3	2
0	9	8	7	6	5	4	3	2	1

0 + 10	1 + 9	2 + 8	3 + 7	4 + 6
10 + 0	9 + 1	8 + 2	7 + 3	6 + 4
		5 + 5		

Addition facts to 20

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

Subtraction is the inverse of addition

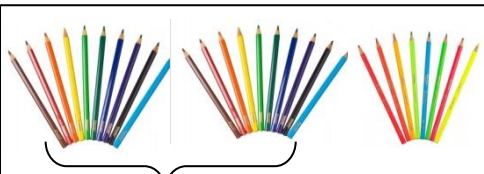


$$5 - 2 = 3$$

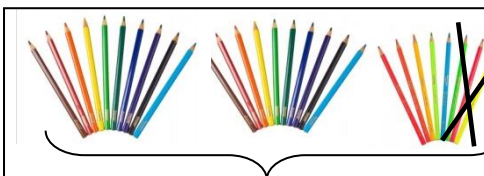


$$5 - 3 = 2$$

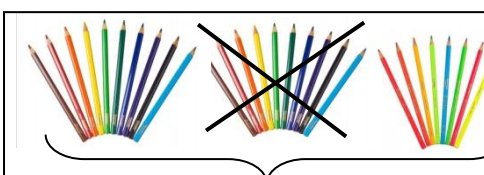
2/8 Add & subtract



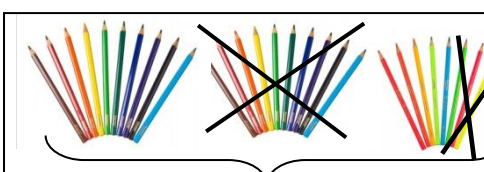
$$20 + 8 = 28$$

$$\begin{array}{r} 20 \\ + 8 \\ \hline 28 \end{array}$$


$$28 - 3 = 25$$

$$\begin{array}{r} 28 \\ - 3 \\ \hline 25 \end{array}$$


$$28 - 10 = 18$$

$$\begin{array}{r} 28 \\ - 10 \\ \hline 18 \end{array}$$


$$28 - 13 = 15$$

$$\begin{array}{r} 28 \\ - 13 \\ \hline 15 \end{array}$$

2/9 Add & subtract

$7 + 3 = 10$ is the same as $3 + 7$ 

$10 - 7 = 3$ is NOT the same as $7 - 10$ 

2/10 Add & subtract

Fact family for add and subtract

$$13 + 7 = 20$$

$$7 + 13 = 20$$

$$20 - 13 = 7$$

$$20 - 7 = 13$$

2/11 2, 5, 10 times tables

♦ See 2/1

Odds & even numbers

- Even numbers - can be paired up



Tip - the last digit always 0 2 4 6 8

- Odd numbers - cannot be paired up



Tip - the last digit always 1 3 5 7 9

2/12 Multiply & divide

Words for MULTIPLY

times

product

double

triple

groups of

lots of

Words for DIVIDE

share

split

halve

Words for EQUALS

is equal to

is the same as

Fact family for multiply and divide

$$7 \times 5 = 35$$

$$5 \times 7 = 35$$

$$35 \div 5 = 7$$

$$35 \div 7 = 5$$

2/13 Multiply & divide

$7 \times 5 = 35$ is the same as 5×7



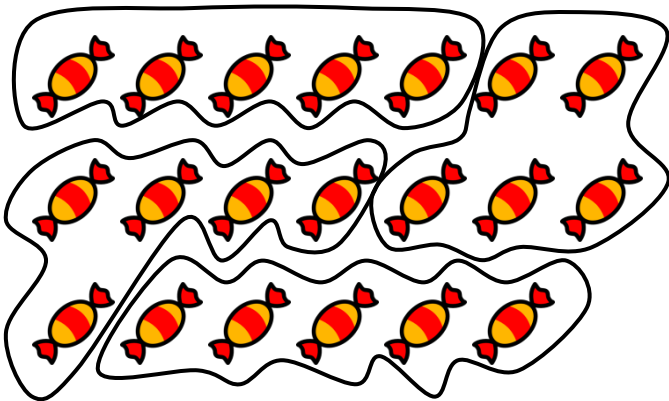
$35 \div 7 = 5$ is NOT the same as $7 \div 35$



2/14 Multiply & divide

Example1: Here are 20 sweets to share
Each child gets 5 sweets
How many children are there?

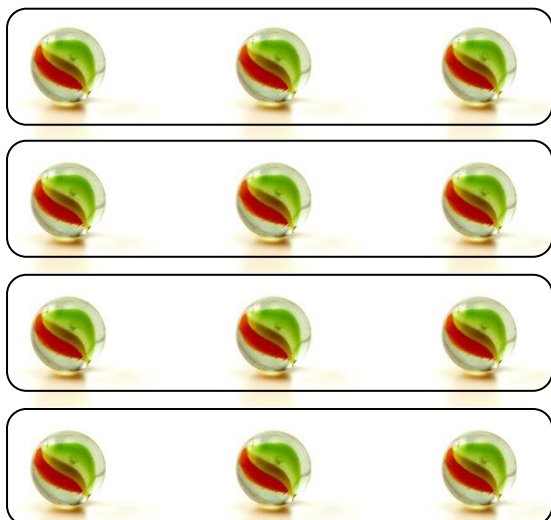
Divide them up into groups of 5 sweets-like this



There must be 4 children

Example2: Here are 12 marbles to share
There are 4 children.
How many marbles does each get?

Divide them up into 4 groups - like this



Each child gets 3 marbles

Repeated addition (Multiplication)



Here are 3 footballers.

How many legs do they have altogether?

Addition sentence

$$2 + 2 + 2 = 6$$

Multiplication sentence

$$3 \times 2 = 6$$

Repeated addition is the same as multiplication

Addition sentence

$$5 + 5 + 5 + 5 = 20$$

Multiplication sentence

$$4 \times 5 = 20$$

$$10 + 10 + 10 = 30$$

$$3 \times 10 = 30$$

Repeated subtraction (Division)

Repeated subtraction is the same as division

15

-5 (1)

10

-5 (2)

5

-5 (3)

0

This is the same as
 $15 \div 5 = 3$

Because 5 has been
subtracted 3 times
to get to 0

Division

Shared into groups of...

This is useful for the division facts
within the times tables, e.g.

$$12 \div 2 = 6$$



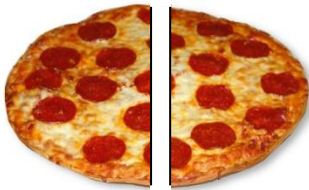
12 has been shared into 6 groups of 2.

2/15 & 16 Fractions

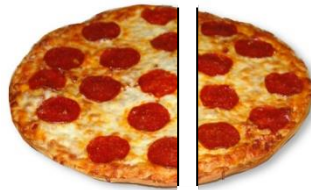
To work out a half

Split into two equal parts

YES



NO!!!!

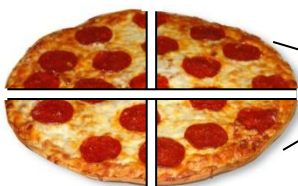


$$10 \text{ sweets} \div 2 = 5 \text{ sweets}$$

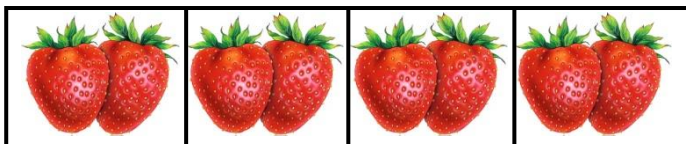
$$\text{OR } \frac{1}{2} \text{ of } 10 = 10 \div 2 = 5$$

To work out a quarter

Split into four equal parts



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



$$8 \text{ strawberries} \div 4 = 2 \text{ strawberries}$$

$$\text{OR } \frac{1}{4} \text{ of } 8 = 8 \div 4 = 2$$

2/17 Units of measure

METRIC units of length are:

Millimetre (mm)



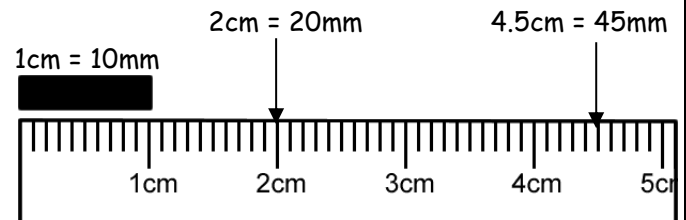
Centimetre (cm)



Metre (m)



Kilometre (km)



- ♦ A big stride is about a metre



- ♦ Distance to Dublin is measured in kilometres



METRIC units of mass are:

Gram (g)



Kilogram (kg)

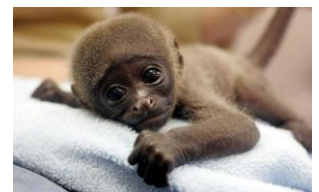


$$1 \text{ kilogram(kg)} = 1000\text{grams(g)}$$

- ♦ An apple weighs 150grams



- ♦ Baby chimp weighs 3kg



2/17 Units of measure (continued)

METRIC units of capacity (liquids) are:

Millilitre (ml)



Centilitre (cl)



Litre (l)

- ♦ A medicine spoon holds 5ml



- ♦ A 5-litre bucket

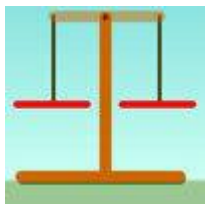


- ♦ Fuel for the car is measured in litres



2/18 Compare units of measure

Think of the units of mass then order:



a bar of chocolate
your teacher
a blown-up balloon
a loaf of bread

A blown-up balloon < a bar of chocolate < a loaf of bread < your teacher

Think of the units of length used then order:



How high you could jump in the air
How far you can kick a football
How far you can run in $\frac{1}{2}$ minute
Length of a bug

Length of a bug < you could jump in the air < you can kick a football < you can run in half a minute

2/19 Money

To write amounts of money

£3 or £3.00

50p or £0.50

£3.50 or 350p **BUT never £3.50p or £3.5**

Value of coins



1p or £0.01

2p or £0.02

5p or £0.05

10p or £0.10

20p or £0.20

50p or £0.50

£1 or £1.00

£2 or £2.00

2/20 Bills and change

To add amounts of money

$$\begin{aligned} & 24p + 32p \\ &= 20p + 4p + 30p + 2p \\ &= 20p + 30p + 4p + 2p \\ &= 50p + 6p \\ &= 56p \end{aligned}$$

To find change from £1

Subtraction method

$$\begin{aligned} & £1 - 56p \\ &= \underbrace{£1 - 50p} - 6p \\ &= 50p - 6p \\ &= 44p \end{aligned}$$

Add-on method

$$\begin{aligned} & 56p + 4p = 60p \\ & 60p + 40p = £1 \\ &= 4p + 40p \\ &= 44p \end{aligned}$$

2/21 Sequence of time

Smallest



Largest

Second(s) 60
Minute(min) 60
Hour(h) 24
Day 7
Week 4
Month 12
Year

2/22 Write time

My Clock

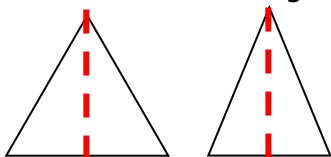


The time shown is:

5 past 6 OR 6:05

2/23 2D shapes

- 3 sides - Triangles

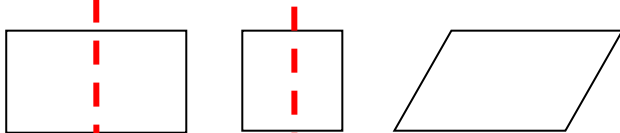


equilateral

isosceles

A vertical line of symmetry

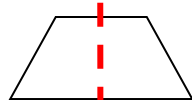
- 4 sides - Quadrilaterals



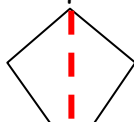
rectangle

square

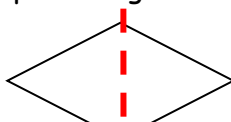
parallelogram



trapezium

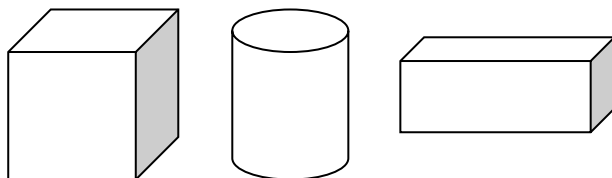


kite



rhombus

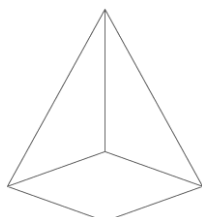
2/24 3D shapes



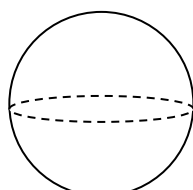
cube

cylinder

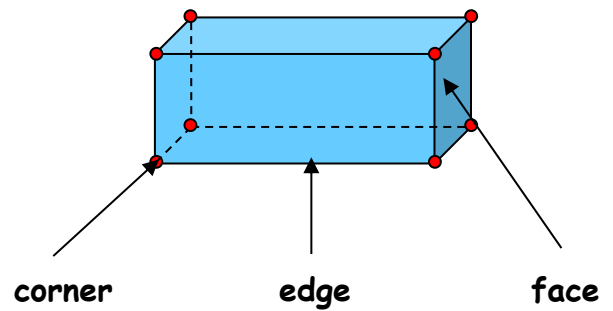
cuboid



pyramid



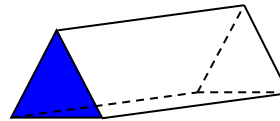
sphere



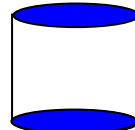
2/25 2D shapes on 3D shapes



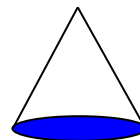
6 faces - all rectangles



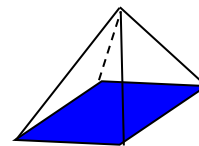
5 faces - 2 triangles
- 3 rectangles



3 faces - 2 circles
- 1 curved surface

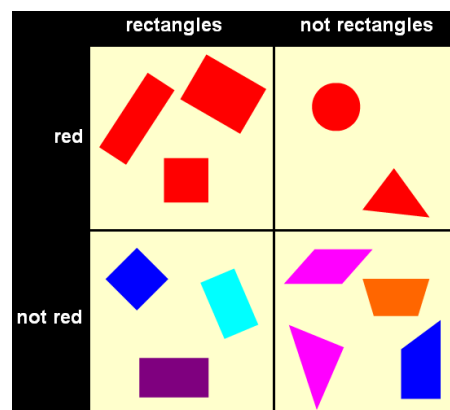


2 faces - 1 circle
- 1 curved surface

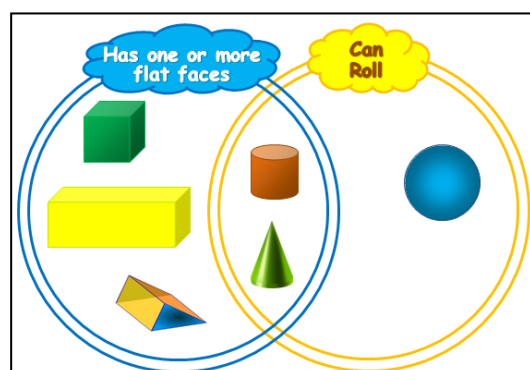


5 faces - 1 rectangle
- 4 triangles

2/26 To sort 2D shapes and 3D shapes



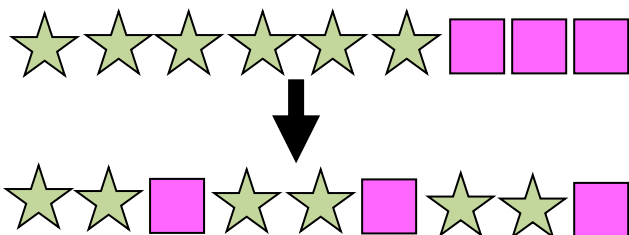
Carroll diagram



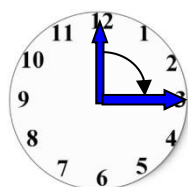
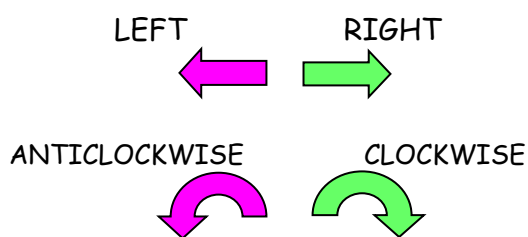
Venn diagram

2/27 Sequence of shapes

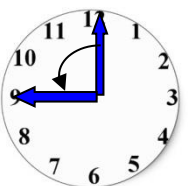
Make these shapes into a pattern



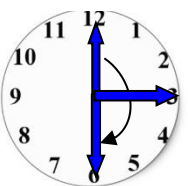
2/28 Describe position, direction & movement



Clockwise (1 right angle)
or $\frac{1}{4}$ turn



Anticlockwise (1 right angle)
or $\frac{1}{4}$ turn



Half turn (2 right angles)

2/29 Tables and graphs

Pictogram of Year 2 favourite fruits

Apple



Banana



Grape



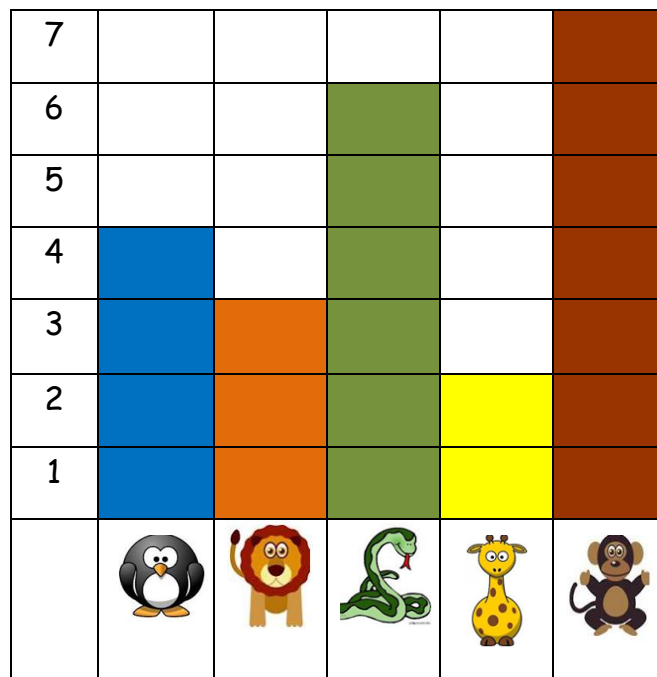
Orange



Tally chart showing animals in the zoo

Animal	Tally	Number of animals
Penguin	IIII	4
Lion	III	3
Snake	HHI I	6
Giraffe	II	2
Monkey	HHI II	7

Block graph to show animals in the zoo



2/30 Questions about tables and graphs

Example:

Questions about 'Animals in the zoo'

- How many animals are there altogether?

$$4+3+6+2+7=22$$

- How many more monkeys are there than lions?

$$7-3=4$$

- What animal is there least of?

giraffe