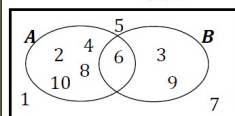


Using diagrams

Recap Venn diagrams, Sample space diagrams and Two-way tables

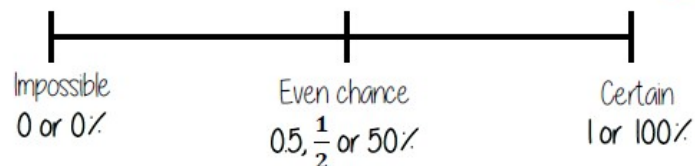


	Car	Bus	Wak	Total
Boys	15	24	14	53
Girls	6	20	21	47
Total	21	44	35	100

The possible outcomes from rolling a dice

	1	2	3	4	5	6
H	1H	2H	3H	4H	5H	6H
T	1T	2T	3T	4T	5T	6T

The probability scale

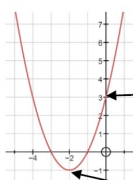


Quadratic Graphs

$$y = x^2 + 4x + 3$$

If x^2 is the highest power in your equation then you have a quadratic graph

It will have a parabola shape



Substitute the x values into the equation of your line to find the y coordinates

x	-4	-3	-2	-1	0	1
y	3	0	-1	0	3	8

Coordinate pairs for plotting $(-3, 0)$

Plot all of the coordinate pairs and join the points with a curve (freehand)

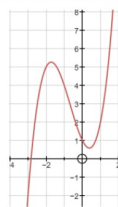
Quadratic graphs are always symmetrical with the turning point in the middle

Interpret other graphs

Cubic Graphs

$$y = x^3 + 2x^2 - 2x + 1$$

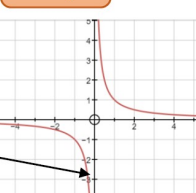
If x^3 is the highest power in your equation then you have a cubic graph



Reciprocal graphs never touch the y axis
This is because x cannot be 0
This is an asymptote

Reciprocal Graphs

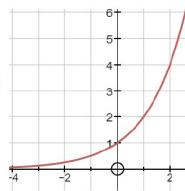
$$y = \frac{1}{x}$$



Exponential Graphs

$$y = 2^x$$

Exponential graphs have a power of x



Single event probability

Probability is always a value between 0 and 1



The probability of getting a blue ball is $\frac{1}{5}$

\therefore The probability of NOT getting a blue ball is $\frac{4}{5}$

The sum of the probabilities is 1

The table shows the probability of selecting a type of chocolate

Dark	Milk	White
0.15	0.35	

$$P(\text{white chocolate}) = 1 - 0.15 - 0.35 = 0.5$$



Mathematical Language:

Biased
Chance
Cubic
Event
Independent
Inequality
Origin
Parabola
Probability
Quadratic
Reciprocal
Relative Frequency

MATHS IS
EVERYWHERE