

Unit 12 - sampling

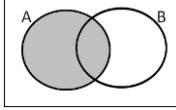
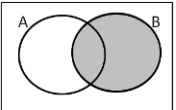
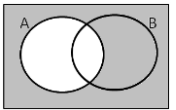
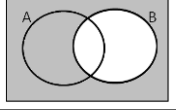
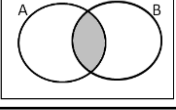
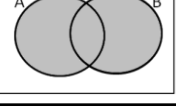
No.	Question	Answer
12.1	What is stratified sampling?	The data set has the same representation/proportion as the sample
12.2	What is proportional sampling?	The proportion in the sample is equivalent to the proportion in the whole
12.3	What is quantitative data?	Data that can be counted or measured (N umbers)
12.4	What is qualitative data?	Information that describes something (L etters)
12.5	What is discrete data?	Data that can only take certain values e.g. number of chairs
12.6	What is continuous data?	Data that can take any value e.g. height
12.7	What is a sample?	A selection taken from a larger group

Unit 14 – combined events

No.	Question	Answer
14.1	What are independent events?	Two events that do not affect each other, more specifically the fact that A occurs does not affect the probability of B occurring e.g. rolling a 5 on a die AND getting a tail when flipping a coin
14.2	What are conditional events	Two events that do affect each other e.g. if I draw a King from a deck of cards and do not replace it, the probability of drawing another King will be decreased
14.3	What is the addition rule (“OR” rule)	$P(A) \text{ OR } P(B) = P(A) + P(B)$
14.4	What is the product rule (“AND” rule)	$P(A) \text{ AND } P(B) = P(A) \times P(B)$

Date (week commencing)	Numbers to learn
22 nd Apr	12.1-12.7
29 th Apr	12.1-12.7
6 th May	13.1-13.11
13 th May	13.12-13.18
20 th May	14.1-14.4

Unit 13 – probability

No.	Question	Answer	Example	HIGHER ONLY
13.1	What is an outcome?	The result of an experiment		
13.2	What is a sample space?	A table showing all the possible outcomes of an event		
13.3	What is theoretical probability?	The expected outcome of an experiment		
13.4	What is relative frequency?	The actual outcome of an experiment		
13.5	What does mutually exclusive mean?	Two events that cannot happen at the same time		
13.6	What does ξ mean?	The Universal Set		
13.7	What does \in mean?	Element of		X
13.8	What does \notin mean?	Not an Element of		X
13.9	What does \cap mean?	Intersection (overlap) ‘AND’		
13.10	What does U mean?	Union (all together) ‘OR’		
13.11	What does \emptyset mean?	Empty Set		X
13.12	How do I write probability of A?	P(A)		
13.13	How do I write probability of B?	P(B)		
13.14	How do I write probability of not A?	P(A')		
13.15	How do I write probability of not B?	P(B')		
13.16	How do I write probability of A and B?	P(A \cap B)		
13.17	How do I write probability of A or B?	P(A \cup B)		
13.18	How do I write probability of A GIVEN B?	P(A B)		X

Unit C16 - quadratics

No.	Question	Answer
16.1	What is the quadratic formula?	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ <p>Where $ax^2 + bx + c = 0$</p>

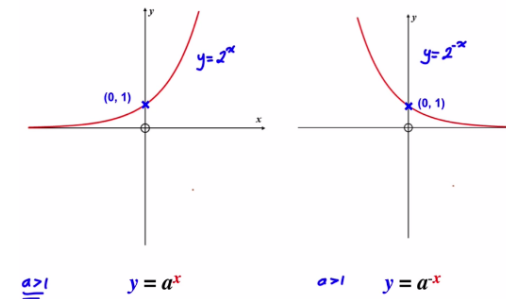
Unit C17 – quadratic graphs

No.	Question	Answer	Example
17.1	What is the y intercept?	Where the graph crosses the y axis	
17.2	What is the maximum point?	The point of the graph where the gradient = 0 and changes from positive to negative	
17.3	What is the minimum point?	The point of the graph where the gradient = 0 and changes from negative to positive	
17.4	What are the roots?	Where the graph crosses the x axis (the solutions)	

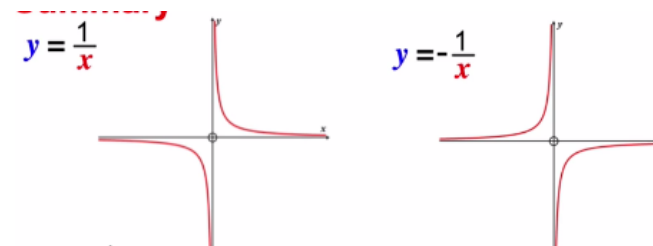
Revision of graphs

1	What does the m stand for in $y = mx + c$?	$m = \text{gradient}$
2	How do you calculate the gradient?	$\frac{\text{Difference in } y}{\text{Difference in } x} = \frac{y_2 - y_1}{x_2 - x_1}$
3	What does the c stand for in $y = mx + c$?	$c = y \text{ intercept}$ (where the line crosses y axis)
4	How do you find the mid-point?	$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$
5	What do parallel lines have?	Have the same gradient
6	What do perpendicular lines have?	Gradient = $-\frac{1}{\text{gradient}}$

Exponential graphs:



Reciprocal graphs:



Cubic graphs:

