Week 1.1

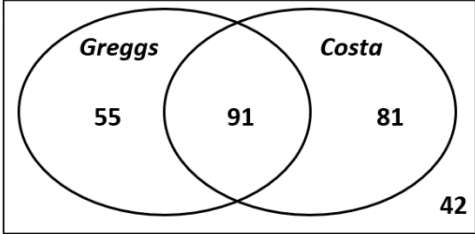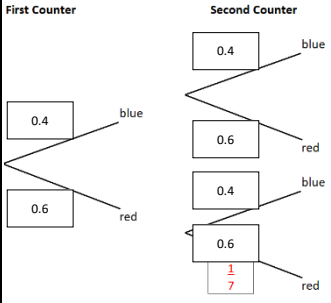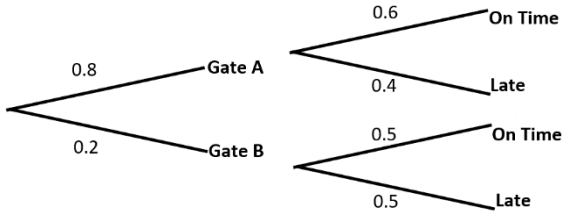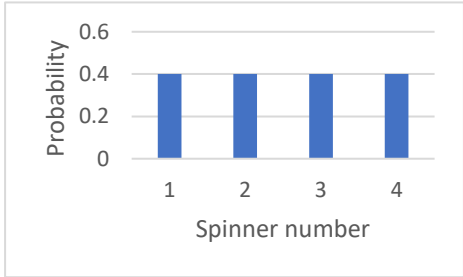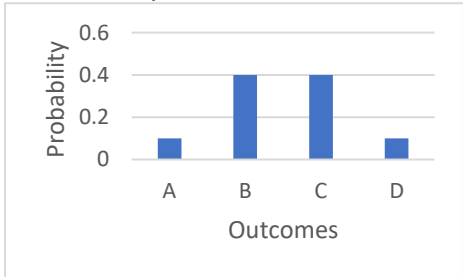|		
The spinner is spun State P(odd)	The relative frequency of catching the disease from Sinead is 0.18 Of the 150 people who came into contact with Sinead, how many of them do you expect to catch the disease?	P(X) = 0.7 P(Y') = 0.1 P(X ∪ Y) = 0.07 Are X and Y mutually exclusive?
It is known that P(A) = 0.43, P(B) = 0.58 and P(C) = 0.27 Find P(B')	<table><tr><td></td><td>Advanced Training</td><td>No Advanced Training</td></tr><tr><td>% of drives who have exceeded the speed limit</td><td>25%</td><td>11%</td></tr></table>Calculate the relative risk of exceeding the speed limit for the not advanced trained drivers compared to the advanced trained drivers.	P(A) = 0.2 P(B) = 0.3 P(A ∩ B) = 0.5 Are X and Y independent?
Charlotte flips a coin 600 times It lands on tails 280 times State the relative frequency of landing on tails	Find P(Highlighter) Highlighter 0.5 0.1 Felt Tip 0.1	First Counter / Second Counter 0.7 blue / 0.7 blue / 0.3 red 0.3 red / 0.7 blue / 0.3 red Find the probability of both counters being different colours

Score ___ / 9

Week 1.2

It is known that P(A) = 0.21, P(B) = 0.22 and P(C) = 0.23 Find P(C')	The relative risk for under 10's getting burnt compared to over 10's is 0.54. What does this mean?	P(X') = 0.8 P(Y) = 0.5 P(X ∩ Y) = 0.4 Are X and Y independent?
Louise flips a coin 220 times It lands on tails 180 State the relative frequency of landing on tails	Find P(Greggs U Costa) 	 Find the probability that the two counters are the same colour
The relative frequency of the delivery arriving on time is 0.86 There are 23 deliveries expected this week, how many of them do we expect to arrive on time?	State a proof for mutually exclusive events	 Find P(Gate A | Late)

Score ___ / 9
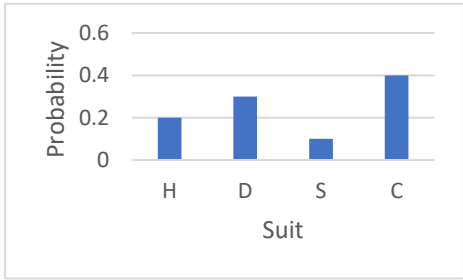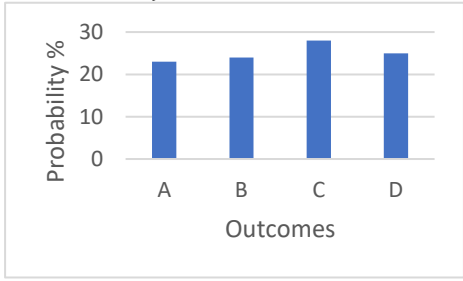
Week 2.1

Does this diagram represent a Uniform distribution?	TRUE or FALSE?	Taxi numbers run consecutively from 1 to n.
Probability vs Spinner number (1, 2, 3, 4) all at 0.4	The day of the week on which a GCSE exam is scheduled is an example of a uniform distribution	Charlotte collects the taxi numbers from vehicles she has hired. The numbers are 124, 26, 94, 38, 107, 61. Use the mean to estimate the number of taxis
Does this diagram represent a Uniform distribution? Frequency vs Suit (H, D, S, C) all at 23	TRUE or FALSE? The number showing when a fair dice is rolled is an example of a uniform distribution	Adam records the numbers of vehicles that he has hired. His data is 100, 122, 105, 98, 104, 121, 34. Use the median to estimate the number of taxis
Does this diagram represent a Uniform distribution? Probability vs Outcomes (A, B, C, D): A=0.1, B=0.4, C=0.4, D=0.1	TRUE or FALSE? The number of a raffle ticket when 200 people have bought up to 5 tickets each is an example of a uniform distribution	Random numbers from 0 to n are created using a calculator. The first 5 numbers to be drawn out are 23, 8, 5, 14 and 36. Calculate the mean of these numbers and use it to estimate the number of values available

Score ___ / 9
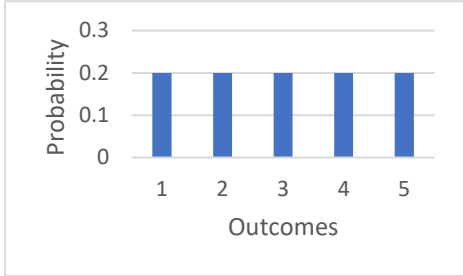
Week 2.2

Does this diagram represent a Uniform distribution? Probability vs Suit bar chart (H: 0.2, D: 0.3, S: 0.1, C: 0.4)	TRUE or FALSE? The colour shown when a card from a pack of 52 is drawn an example of a uniform distribution	Luca records the numbers of vehicles that he has hired. His data is 22, 51, 47, 13, 26, 65, 61, 8 Use the median to estimate the number of taxis
Does this diagram represent a Uniform distribution? Probability % vs Outcomes bar chart (A: 23, B: 24, C: 28, D: 25)	TRUE or FALSE? The colour of a marble chosen from a bag with 3 red, 2 blue and 10 white marbles is an example of a uniform distribution	Random numbers from 0 to n are created using a calculator. The first 5 numbers to be drawn out are 12, 18, 50, 4, 39 Calculate the mean of these numbers and use it to estimate the number of values available
The number of red counters when drawn from a bag of 3 red, 5 blue and 2 green is recorded What is n?	The number of red counters when drawn from a bag of 3 red, 5 blue and 2 green is recorded What is p?	The number of red counters when drawn from a bag of 3 red, 5 blue and 2 green is recorded What is q?

Score ___ / 9

Week 3.1

Does this diagram represent a Uniform distribution? Probability axis: 0, 0.1, 0.2, 0.3 Outcomes: 1, 2, 3, 4, 5	TRUE or FALSE? The price of a chocolate chosen from a shop which sells chocolate ranging from 10p – 95p is an example of a uniform distribution	Random numbers from 0 to n are created using a calculator. The first 5 numbers to be drawn out are 73, 74, 15, 28, 37 Calculate the mean of these numbers and use it to estimate the number of values available
The number of red counters when drawn from a bag of 10 red, 10 blue and 10 green is recorded What is n?	The number of red counters when drawn from a bag of 10 red, 10 blue and 10 green is recorded What is p?	The number of red counters when drawn from a bag of 10 red, 10 blue and 10 green is recorded What is q?
I flip a coin 3 times How many different ways can I get exactly 3 heads?	I flip a coin 10 times How many different ways can I get exactly 3 heads?	I flip a coin 50 times How many different ways can I get exactly 3 heads?

Score ___ / 9

Week 3.2

The number of red counters when drawn from a bag of 5 red, 12 blue and 3 green is recorded What is n?	The number of red counters when drawn from a bag of 5 red, 12 blue and 3 green is recorded What is p?	The number of red counters when drawn from a bag of 5 red, 12 blue and 3 green is recorded What is q?
I flip a coin 6 times How many different ways can I get exactly 3 heads?	I flip a coin 15 times How many different ways can I get exactly 3 heads?	I flip a coin 30 times How many different ways can I get exactly 3 heads?
$X \sim B(20, 0.45)$ What is n?	$X \sim B(20, 0.45)$ What is p?	$X \sim B(20, 0.45)$ What is q?

Score ___ / 9

Week 4.1

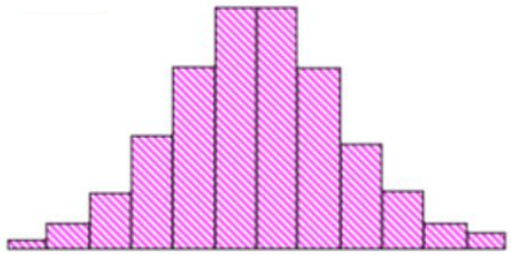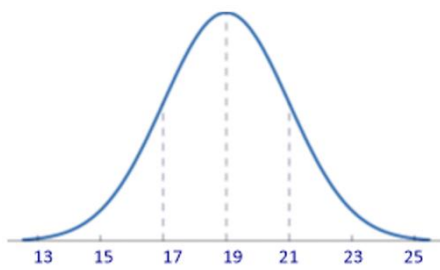| I flip a coin 9 times How many different ways can I get exactly 3 heads?	I flip a coin 21 times How many different ways can I get exactly 3 heads?	I flip a coin 40 times How many different ways can I get exactly 3 heads?
$X \sim B(40,0.32)$ What is n?	$X \sim B(40,0.32)$ What is p?	$X \sim B(40,0.32)$ What is q?
$X \sim B(10,0.51)$ Find $P(X = 3)$	State the Binomial Formula	$X \sim B(15,0.37)$ Find $P(X = 5)$

Score ___ / 9

Week 4.2

$X \sim B(35, 0.18)$	$X \sim B(35, 0.18)$	$X \sim B(35, 0.18)$
What is n?	What is p?	What is q?
$X \sim B(8, 0.87)$ Find $P(X = 7)$	State the Binomial Formula	$X \sim B(20, 0.08)$ Find $P(X = 3)$
$X \sim B(10, 0.17)$ Find $P(X \leq 2)$	$X \sim B(7, 0.25)$ Find $P(X < 2)$	$X \sim B(12, 0.86)$ Find $P(X \geq 11)$

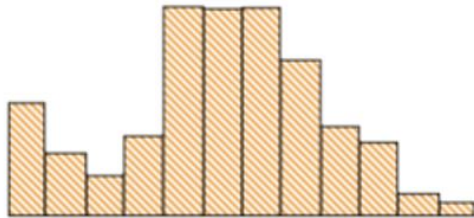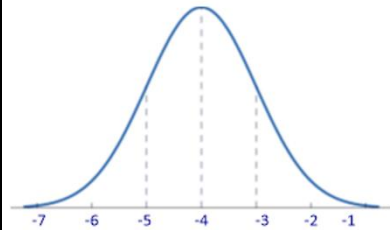Score ___ / 9

Week 5.1

$X\sim B(15,0.838)$ Find $P(X = 8)$	State the Binomial Formula	$X\sim B(5,0.91)$ Find $P(X = 4)$
$X\sim B(12,0.16)$ Find $P(X \leq 1)$	$X\sim B(20,0.05)$ Find $P(X < 1)$	$X\sim B(16,0.74)$ Find $P(X \geq 15)$
Does this diagram represent a Normal Distribution? 	Fill in the blanks: For data which is normally distributed _____% of the data values lie within 2 standard deviations of the mean?	Estimate the mean from the normal distribution

Score ___ / 9
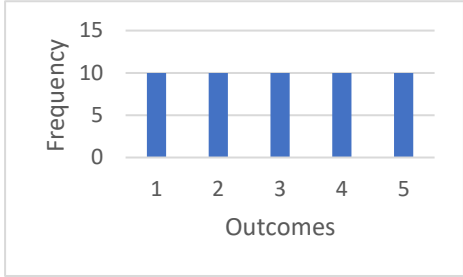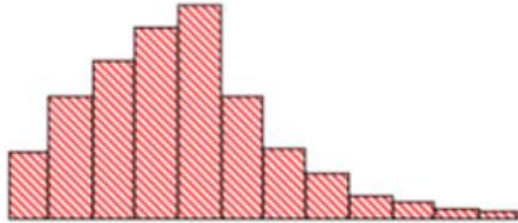
Week 5.2

X~B(20,0.28) Find P(X ≤ 2)	X~B(8,0.35) Find P(X < 2)	X~B(25,0.82) Find P(X ≥ 24)
Does this diagram represent a Normal Distribution?	Fill in the blanks: For data which is normally distributed _____% of the data values lie within 3 standard deviations of the mean?	Estimate the mean from the normal distribution below
A Normal Distribution is used to represent the results of a test out of 100 for students in 11B The mean score is known to be 78 with a standard deviation of 2.5 Between which two scores are 68% of the marks between?	A Normal Distribution is used to represent the results of a test out of 100 for students in 11B The mean score is known to be 78 with a standard deviation of 2.5 Between which two scores are 95% of the marks between?	A Normal Distribution is used to represent the results of a test out of 100 for students in 11B The mean score is known to be 78 with a standard deviation of 2.5 Between which two scores are 99.5% of the marks between?

Score ___ / 9

Week 6.1

Does this diagram represent a Uniform distribution?	$X\sim B(22,0.8)$ What is n?	State the Bibnomial Formula
The number of red counters when drawn from a bag of 8 red, 8 blue and 4 green is recorded What is n?	$X\sim B(9,0.81)$ Find P(X = 8)	Does this diagram represent a Normal Distribution?
I flip a coin 5 times How many different ways can I get exactly 4 heads?	$X\sim B(11,0.31)$ Find P(X ≤ 1)	A Normal Distribution is used to represent the results of a test out of 70 for students in 11C The mean score is known to be 45 with a standard deviation of 1.8 Between which two scores are 95% of the marks between?

Score ___ / 9

Week 6.2

Random numbers from 0 to n are created using a calculator. The first 5 numbers to be drawn out are 23, 45, 18, 90 and 47 Calculate the mean of these numbers and use it to estimate the number of values available	Fill in the blanks: For data which is normally distributed _____% of the data values lie within 1 standard deviation of the mean?	$X \sim B(30, 0.92)$ Find $P(X \geq 29)$
The number of red counters when drawn from a bag of 6 red, 15 blue and 9 green is recorded What is q?	$X \sim B(80, 0.96)$ What is q?	Estimate the mean from the normal distribution below
I flip a coin 35 times How many different ways can I get exactly 20 heads?	$X \sim B(19, 0.58)$ Find $P(X = 10)$	A Normal Distribution is used to represent the results of a test out of 80 for students in 11D The mean score is known to be 52 with a standard deviation of 3.1 Between which two scores are 99.5% of the marks between?

Score ____ / 9