Binomial Distribution
Probability Distribution Formula
Worksheet 1

To view the lesson notes, tutorial(s) and answer key for this worksheet: scan the QR Code in the upper right hand corner or click on the link in the header of this page.

Answer all questions in the boxes provided.

Question 1
Charlotte and Clara are planning a 7 day trip to Falkenberg, Sweden. The probability that it rains on any one of those days is 0.3. What is the probability that it rains during exactly 3 of those 7 days?

Question 2
A factory produces bolts that are then sold to car manufacturers. The manufacturing process is such that 1 in 50 chance that their machine produces a faulty bolt (that they can’t sell) and given that the production of each bolt doesn’t affect the production of any other bolt, what is the probability of there being exactly five faulty bolts if they manufacture 200 of them?
Question 3
8 students sit a highly advanced mathematics test. The probability that a student scores above 80% is 0.1. What is the probability that exactly 4 of the 8 students score higher than 80%?

Question 4
James likes to play darts. When he plays, on each throw there is a 20% chance that he hits a bullseye. He throws 10 darts in a row. What is the probability that he hits exactly 9 bullseyes?
Question 5
The process with which a famous smartphone company has its phones manufactured is such that the probability of a phone being faulty is 0.03. In an hour 100 phones are manufactured. What is the probability that exactly 4 of those phones are faulty?