

4.8 The binomial distribution

Checklist

What you should know

By the end of this subtopic you should be able to:

- identify a binomial experiment as an experiment with these characteristics:
 - there are a finite number of trials
 - the trials are binary events
 - the trials are identical and independent
- recognise the notation $X \sim B(n, p)$ as a discrete random variable X being distributed binomially with n trials and a probability of success equal to p
- find the expected mean number of outcomes, the variance and the standard deviation of a binomial distribution
- use technology to find the probability of a certain number of outcomes or a range of outcomes in a binomial distribution.

