Year 12 T6
Maths Overview

Statistics and Probability

Learning Outcomes	Elaboration	Textbook
Students should be able to: • know when to add or multiply two probabilities: if A and B are mutually exclusive, then the probability of A or B occurring is P(A) + P(B), whereas if A and B are independent events, the probability of A and B occurring is P(A) × P(B); and • use tree diagrams to represent outcomes of compound events, recognising when events are independent.	Selection with or without replacement. Understand that when dealing with two independent events, the probability of them both happening is less than the probability of either of them happening (unless the probability is 0 or 1). Know that the probability of getting two consecutive sunny days over the weekend is less than the probability of getting a sunny Saturday or Sunday. Draw a tree diagram or use a tabulation to define all of the possible outcomes e.g. tossing a coin 3 times To include dependent and independent events. Use of a tree diagram to calculate conditional probability. Given that there are 2 sets of traffic lights on the way to school and the probability of getting straight through the lights without having to stop are 0.6 and 0.4 respectively, find the probability of a cyclist having to stop at one set of lights, using a tree diagram or otherwise.	**5**