

Worksheet: Probability

IB · Class 12 · Mathematics · 5 questions · 16 marks

Name: _____

Date: _____

Score: _____ / 16

Q1. A pair of dice is thrown. Find the probability the sum is 7 given the first die shows 3. [2 marks]

Q2. A coin is tossed 5 times. Find the probability of at least 3 heads. [3 marks]

Q3. X takes values 0,1,2,3 with probabilities 0.1, 0.3, 0.4, k. Find k, $E(X)$, and $\text{Var}(X)$. [4 marks]

Q4. A bag has 5 white and 3 black balls. Two are drawn. Find the probability they are different colours. [3 marks]

Q5. An examinee guesses, copies, or knows an answer with probabilities 0.1, 0.2, 0.7; correct with probability 0.2, 0.8, 1 respectively. Find $P(\text{knew} \mid \text{correct})$. [4 marks]
