Sri Lanka Institute of Information

Technology



Lab Submission

Lab sheet 07

**IT24100209**

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**Probability and Statistics - IT2120**

B.Sc. (Hons) in Information Technology

Exercise

1. Atrain arrives at a station uniformly between 8:00 a.m. and 8:40 a.m. Let the

random variable X represent the number of minutes the train arrives after 8:00

a.m. What is the probability that the train arrives between 8:10 a.m. and 8:25 a.m.?

2. The time (in hours) to complete a software update is exponentially distributed with rate λ = 1/3Find the probability that an update will take at most 2 hours.

3. Suppose IQ scores are normally distributed with a mean of 100 and a standard deviation of 15.

1. What is the probability that a randomly selected person has an IQ above 130?
2. What IQ score represents the 95th percentile?

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AI-generated content may be incorrect.