Sri Lanka Institute of Information

Technology



Lab Submission

<Lab sheet No 07>

**<IT24103815>**

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**IT2120 - Probability and Statistics**

B.Sc. (Hons) in Information Technology

**Exercise**

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

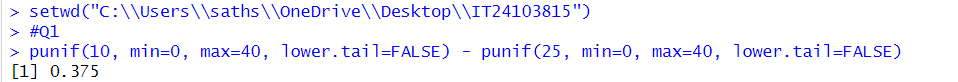
random variable X represent the number of minutes the train arrives after 8:00

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

a.m.?



Answer: -



2. The time (in hours) to complete a software update is exponentially distributed

with rate λ = 1/3. Find the probability that an update will take at most 2 hours.



Answer: -



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

standard deviation of 15.

i. What is the probability that a randomly selected person has an IQ

above 130?



Answer: -



ii. What IQ score represents the 95th percentile?



Answer: -

