**IT24102723**

**Silva L.T.R.D**

**IT2120 - Probability and Statistics**

**Lab 07**

**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.?**

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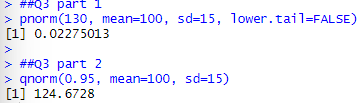
**2. The time (in hours) to complete a software update is exponentially distributed with rate λ = 1/3 . Find the probability that an update will take at most 2 hours.**

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**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?**

**ii. What IQ score represents the 95th percentile?**

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