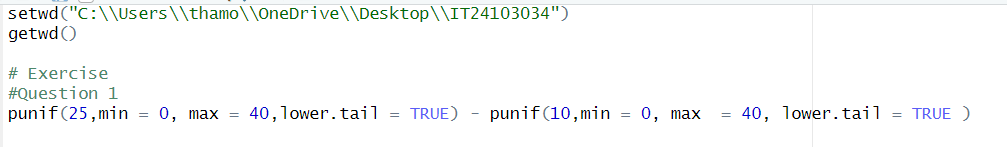
**IT2120- Probability and Statistics**

**Lab Sheet 07**

**IT24103034**

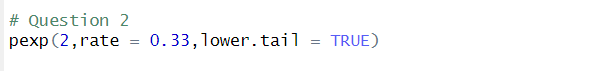
1. **Atrain arrives at a station uniformly between 8:00 a.m. and 8:40 a.m. Let the random variable X represent the number of minutes the train arrives after 8:00 a.m. What is the probability that the train arrives between 8:10 a.m. and 8:25 a.m.?**

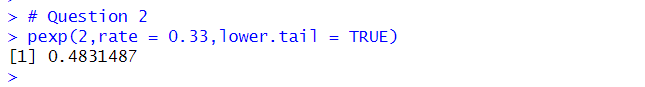
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**A computer code with numbers and letters

AI-generated content may be incorrect.**

1. **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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1. **Suppose IQ scores are normally distributed with a mean of 100 and a standard deviation of 15.**
2. **What is the probability that a randomly selected person has an IQ above 130?**

**A math equation with numbers and symbols

AI-generated content may be incorrect.**

**A close-up of a number

AI-generated content may be incorrect.**

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

**A black and blue text

AI-generated content may be incorrect.**

**A number of numbers on a white background

AI-generated content may be incorrect.**