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IT2120 - Probability and Statistics – Lab Sheet 07

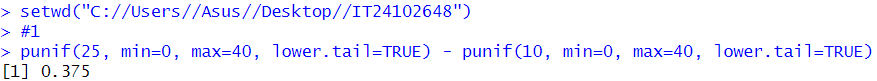
Exercise

1) 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.?



2) 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.



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?

