IT24103841

Lab 07

Ps

```
> setwd("C:\\Users\\it24103841\\Desktop\\IT24103841_07")
> #question 01
> min_time <- 0
> max_time <- 40
> lower <- 10
> upper <- 25
> prob <- punif(upper, min_time, max_time) - punif(lower, min_time,max_time)
> prob
[1] 0.375
> #question 02
> lambda <- 1/3
> t <- 2
> prob <- pexp(t, rate = lambda)
> prob
[1] 0.4865829
> #question 03
> #part i
> mean_iq <- 100
> sd_iq <- 15
> prob_above_130 <- 1 - pnorm(130, mean = mean_iq,sd = sd_iq)
> prob_above_130
[1] 0.02275013
> #part ii
> iq_95th <-pnorm(0.95, mean = mean_iq , sd = sd_iq)
> iq_95th
[1] 2.010071e-11
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