Lab 07

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01)

```
> setwd("C:\\Users\\Chamath\\OneDrive\\Desktop\\IT24103512\\Lab 07")
> #01
> prob_train <- punif(25, min=0, max=40, lower.tail = TRUE) - punif(10,min
=0,max = 40,lower.tail = TRUE)
> cat("Probability train arrives between 8:10 and 8:25 a.m" , round(prob_t
rain,4), "\n\n")
Probability train arrives between 8:10 and 8:25 a.m 0.375

>
```

02)

```
> prob_update <- pexp(2, rate=1/3, lower.tail = TRUE)
> cat("Probability update takes at most 2 hours:", round(prob_update,
4),"\n\n")
Probability update takes at most 2 hours: 0.4866

>
```

03)

```
> prob_iq_130 <- pnorm(130, mean = 100, sd=15, lower.tail = FALSE)
> cat("Probability IQ above 130:", round(prob_iq_130,4),"\n")
Probability IQ above 130: 0.0228
>
> iq_95 <- qnorm(0.95,mean=100, sd=15)
> cat("IQ score representing 95th percentile:",round(iq_95,2),"\n")
IQ score representing 95th percentile: 124.67
```