

01)

```
R 4.5.1 • C:/Users/lahiruni kavindya/Desktop/IT24102392 lab 7 //
> setwd("C:\\Users\\lahiruni kavindya\\Desktop\\IT24102392 lab 7")
> #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_train,4), "\\n\\n")
Probability train arrives between 8:10 and 8:25 a.m 0.375
```

02)

```
> #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)

```
> #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
> |
```