```
> setwd("C:\\Users\\MCS\\OneDrive - Sri Lanka Institute of Information Technology\\Desktop\\IT24103399_Lab_07")
> getwd()
[1] "C:/Users/MCS/OneDrive - Sri Lanka Institute of Information Technology/Desktop/IT24103399_Lab_07"
> # Exercise Question 1: Uniform Distribution
>
> prob_q1 <- punif(25, min=0, max=40) - punif(10, min=0, max=40)
> cat("Q 1: Probability that the train arrives between 8:10 a.m. and 8:25 a.m.","\n", prob_q1, "\n")
Q 1: Probability that the train arrives between 8:10 a.m. and 8:25 a.m.
 0.375
>
```

```
> # Exercise Question 2: Exponential Distribution
>
> prob_q2 <- pexp(2, rate=1/3)
> cat("Q 2: Probability that an update takes at most 2 hours ","\n", prob_q2, "\n")
Q 2: Probability that an update takes at most 2 hours
 0.4865829
>
```

```
> # Exercise Question 3i: Normal Distribution
>
> prob_q3i <- 1 - pnorm(130, mean=100, sd=15)
> cat("Q 3i: Probability of IQ above 130 ","\n", prob_q3i, "\n")
Q 3i: Probability of IQ above 130
 0.02275013
>
```

```
>
> # Exercise Question 3ii: 95th Percentile
>
> iq_95th <- qnorm(0.95, mean=100, sd=15)
> cat("Q 3ii: IQ score for 95th percentile ","\n", iq_95th, "\n")
Q 3ii: IQ score for 95th percentile
 124.6728
>
`
```