

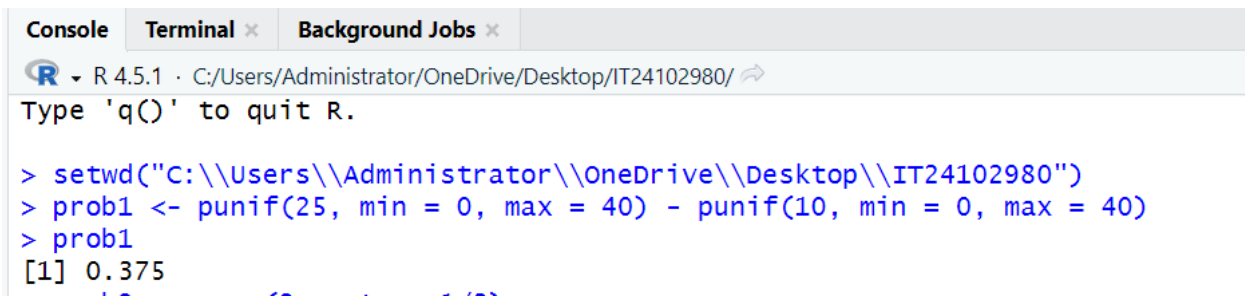
IT24103040

## Lab Sheet 07

### Code

```
2 #1
3 #uniform distribution
4 prob1 <- punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
5 prob1
6
```

### Output



The screenshot shows the R console interface with tabs for Console, Terminal, and Background Jobs. The console displays the R version (4.5.1) and the current working directory (C:/Users/Administrator/OneDrive/Desktop/IT24102980/). The prompt 'Type 'q()' to quit R.' is shown. The code from the previous block is executed, resulting in the output [1] 0.375.

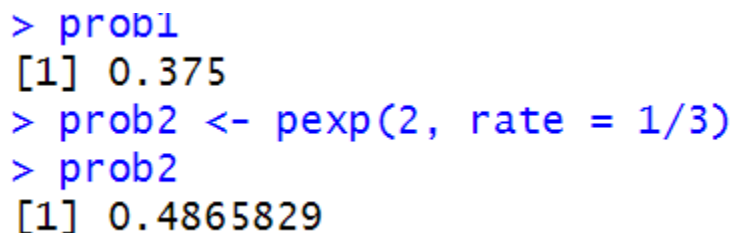
```
R 4.5.1 · C:/Users/Administrator/OneDrive/Desktop/IT24102980/
Type 'q()' to quit R.

> setwd("C:\\Users\\Administrator\\OneDrive\\Desktop\\IT24102980")
> prob1 <- punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
> prob1
[1] 0.375
```

### Code

```
7 #2
8 #Exponential distribution
9 prob2 <- pexp(2, rate = 1/3)
10 prob2
11
```

### Output



The screenshot shows the R console output for the second code block. The prompt is followed by the execution of the code, resulting in the output [1] 0.4865829.

```
> prob1
[1] 0.375
> prob2 <- pexp(2, rate = 1/3)
> prob2
[1] 0.4865829
```

### Code

```
12 #3
13 #Normal distribution
14 prob3_i <- 1 - pnorm(130, mean = 100, sd = 15)
15 prob3_i
16
17 iq_95 <- qnorm(0.95, mean = 100, sd = 15)
18 iq_95
```

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#### Output

```
[1] 0.4865829
> prob3_i <- 1 - pnorm(130, mean = 100, sd = 15)
> prob3_i
[1] 0.02275013
> iq_95 <- qnorm(0.95, mean = 100, sd = 15)
> iq_95
[1] 124.6728
>
```

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