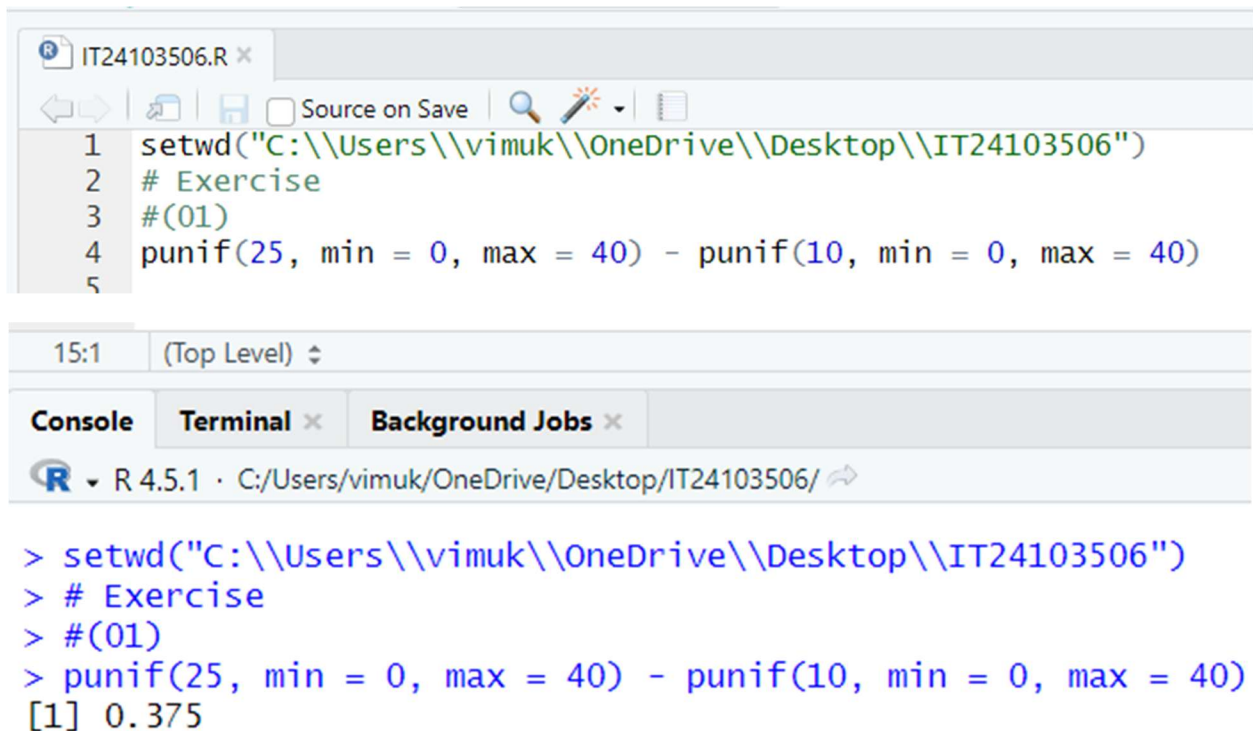


IT24103506 – Siriwardana S.A.D.V.I.

IT2120- Probability and Statistics | Lab Sheet 07

01)



The screenshot shows the R Studio interface. The script editor at the top contains the following code:

```
1 setwd("C:\\Users\\vimuk\\OneDrive\\Desktop\\IT24103506")
2 # Exercise
3 #(01)
4 punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
5
```

Below the script editor, the console output is displayed:

```
> setwd("C:\\Users\\vimuk\\OneDrive\\Desktop\\IT24103506")
> # Exercise
> #(01)
> punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
[1] 0.375
```

02)

```
#(02)
pexp(2, rate = 1/3)

> #(02)
> pexp(2, rate = 1/3)
[1] 0.4865829
```

03)

```
#(03)
#(i) P(IQ > 130)
pnorm(130, mean = 100, sd = 15, lower.tail = FALSE)

#(ii) 95th percentile of IQ
qnorm(0.95, mean = 100, sd = 15)

> #(03)
> #(i) P(IQ > 130)
> pnorm(130, mean = 100, sd = 15, lower.tail = FALSE)
[1] 0.02275013
> #(ii) 95th percentile of IQ
> qnorm(0.95, mean = 100, sd = 15)
[1] 124.6728
\
```