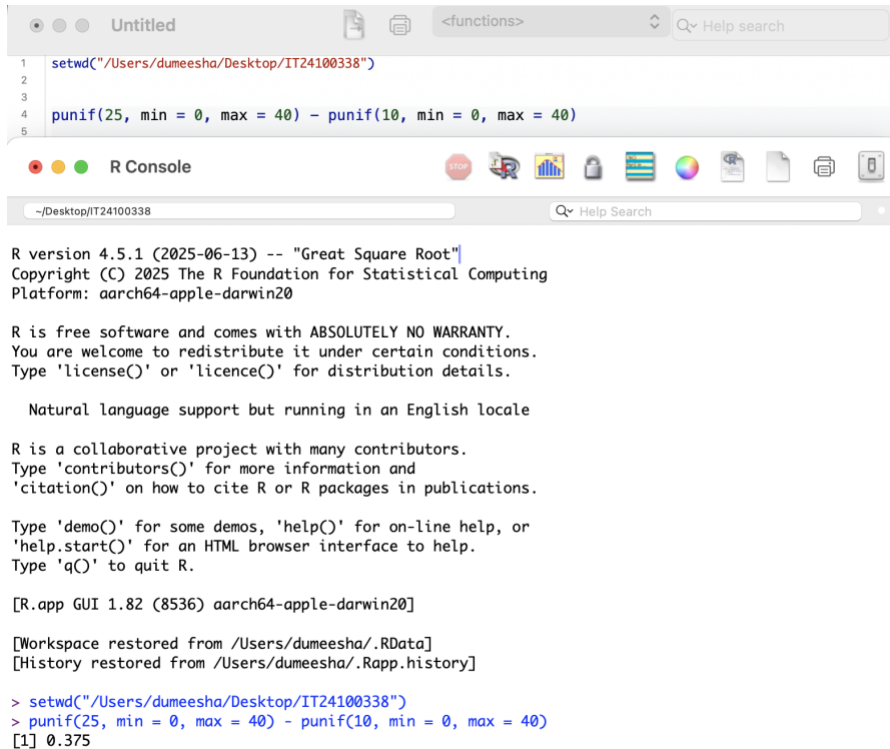


Exercise

1



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

```
1 setwd("/Users/dumeesha/Desktop/IT24100338")
2
3
4 punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
5
```

The R Console shows the following output:

```
R version 4.5.1 (2025-06-13) -- "Great Square Root"
Copyright (C) 2025 The R Foundation for Statistical Computing
Platform: aarch64-apple-darwin20

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

Natural language support but running in an English locale

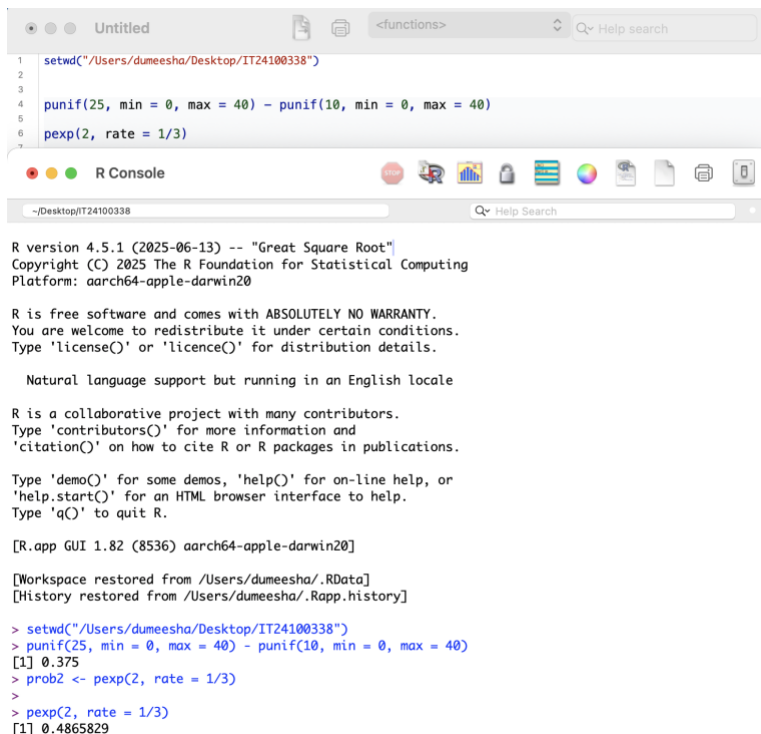
R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[R.app GUI 1.82 (8536) aarch64-apple-darwin20]
[Workspace restored from /Users/dumeesha/.RData]
[History restored from /Users/dumeesha/.Rapp.history]

> setwd("/Users/dumeesha/Desktop/IT24100338")
> punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
[1] 0.375
```

2



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

```
1 setwd("/Users/dumeesha/Desktop/IT24100338")
2
3
4 punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
5
6 pexp(2, rate = 1/3)
7
```

The R Console shows the following output:

```
R version 4.5.1 (2025-06-13) -- "Great Square Root"
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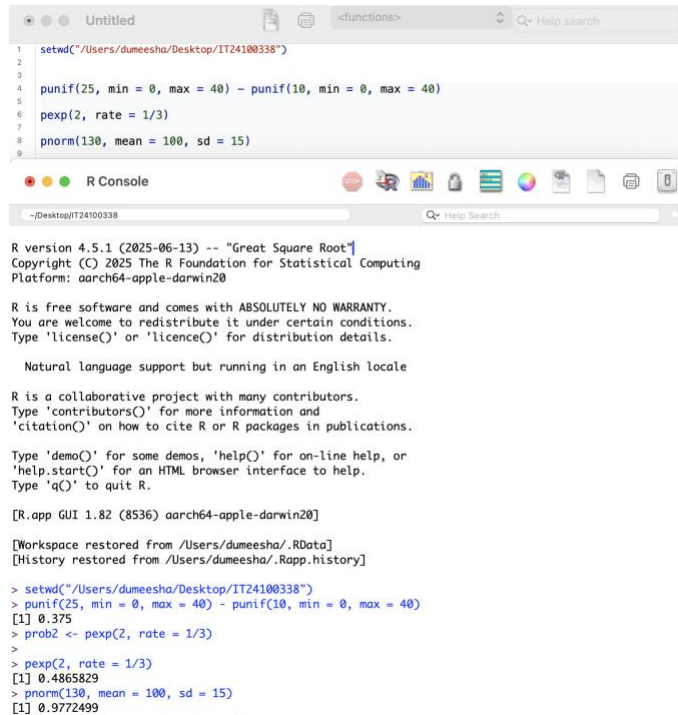
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[R.app GUI 1.82 (8536) aarch64-apple-darwin20]
[Workspace restored from /Users/dumeesha/.RData]
[History restored from /Users/dumeesha/.Rapp.history]

> setwd("/Users/dumeesha/Desktop/IT24100338")
> punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
[1] 0.375
> prob2 <- pexp(2, rate = 1/3)
>
> pexp(2, rate = 1/3)
[1] 0.4865829
```

3

I.



```
1 setwd("/Users/dumeesha/Desktop/IT24100338")
2
3
4 punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
5
6 pexp(2, rate = 1/3)
7
8 pnorm(130, mean = 100, sd = 15)
9
```

R version 4.5.1 (2025-06-13) -- "Great Square Root"
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Platform: aarch64-apple-darwin20

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'citation()' on how to cite R or R packages in publications.

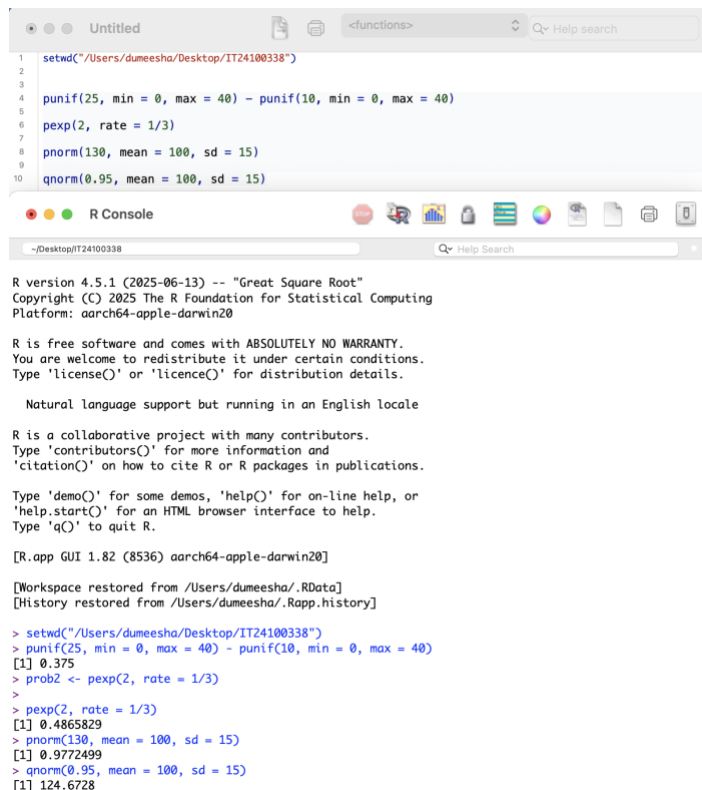
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[R.app GUI 1.82 (8536) aarch64-apple-darwin20]

[Workspace restored from /Users/dumeesha/.RData]
[History restored from /Users/dumeesha/.Rapp.history]

```
> setwd("/Users/dumeesha/Desktop/IT24100338")
> punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
[1] 0.375
> prob2 <- pexp(2, rate = 1/3)
>
> pexp(2, rate = 1/3)
[1] 0.4865829
> pnorm(130, mean = 100, sd = 15)
[1] 0.9772499
```

II.



```
1 setwd("/Users/dumeesha/Desktop/IT24100338")
2
3
4 punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
5
6 pexp(2, rate = 1/3)
7
8 pnorm(130, mean = 100, sd = 15)
9
10 qnorm(0.95, mean = 100, sd = 15)
```

R version 4.5.1 (2025-06-13) -- "Great Square Root"
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Platform: aarch64-apple-darwin20

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Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[R.app GUI 1.82 (8536) aarch64-apple-darwin20]

[Workspace restored from /Users/dumeesha/.RData]
[History restored from /Users/dumeesha/.Rapp.history]

```
> setwd("/Users/dumeesha/Desktop/IT24100338")
> punif(25, min = 0, max = 40) - punif(10, min = 0, max = 40)
[1] 0.375
> prob2 <- pexp(2, rate = 1/3)
>
> pexp(2, rate = 1/3)
[1] 0.4865829
> pnorm(130, mean = 100, sd = 15)
[1] 0.9772499
> qnorm(0.95, mean = 100, sd = 15)
[1] 124.6728
```