

# Module 4 Assignment 2

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```
## -- Attaching packages ----- tidyverse 1.3.1 --
```

```
## v ggplot2 3.3.5    v purrr   0.3.4
## v tibble  3.1.6    v dplyr   1.0.7
## v tidyr   1.1.4    v stringr 1.4.0
## v readr   2.1.1    v forcats 0.5.1
```

```
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
```

4.

```
## [1] 51.8
```

5.

```
## [1] 0.8108108
```

7.

```
## [1] 36
```

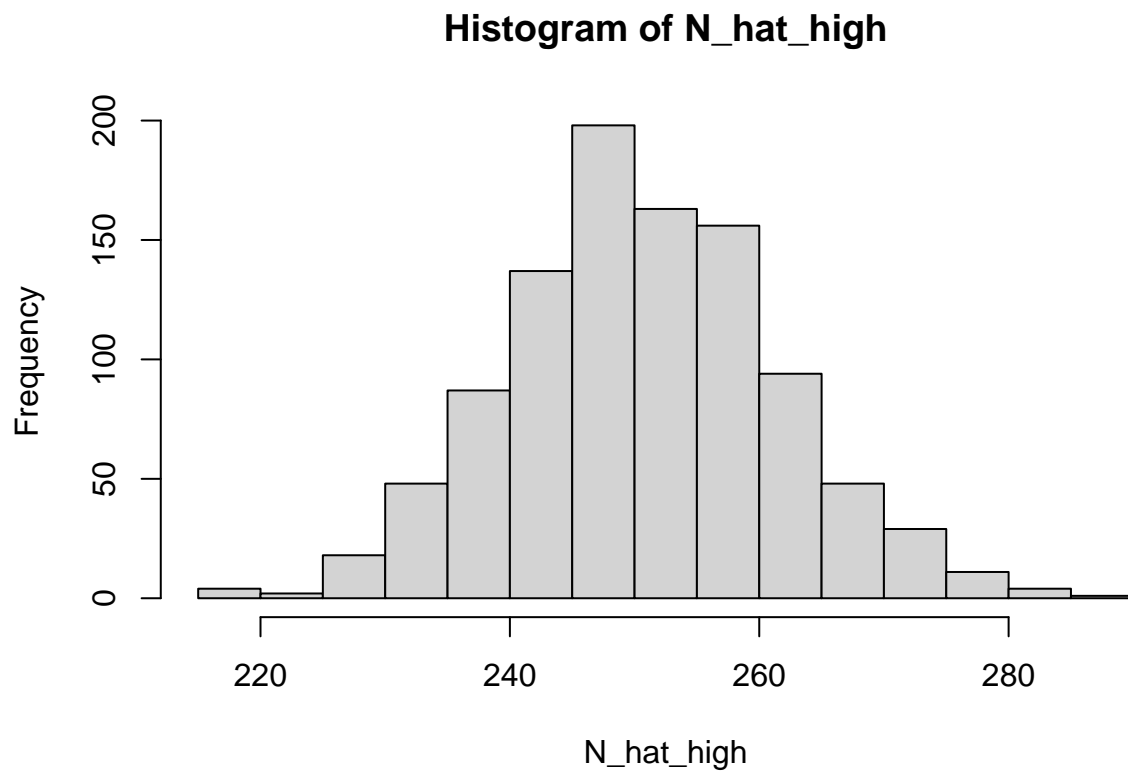
8.

```
## [1] 0.3333333
```

**SIMULATED DATA WILL NOT BE EXACT MATCHES**

10.

b. Plot the histogram of this data.



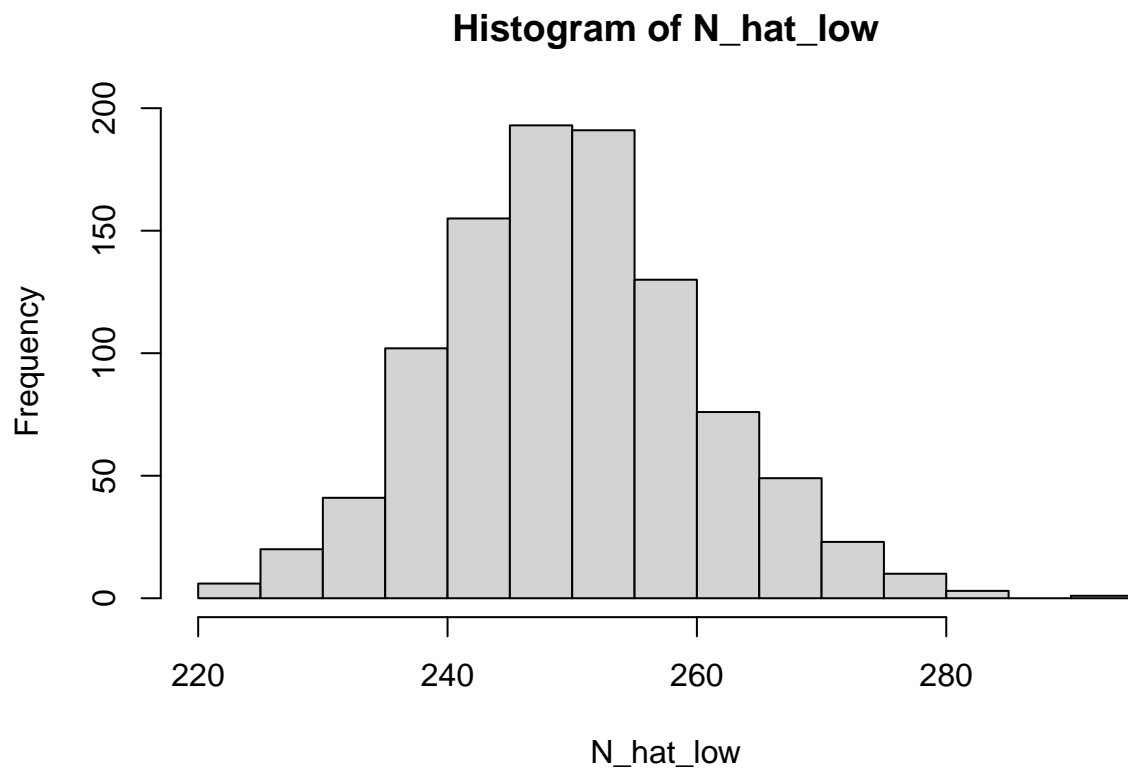
c. Calculate the bias and precision of the estimate.

```
## [1] 0.7006277
```

```
## [1] 10.87743
```

11.

b. Plot the histogram of this data.



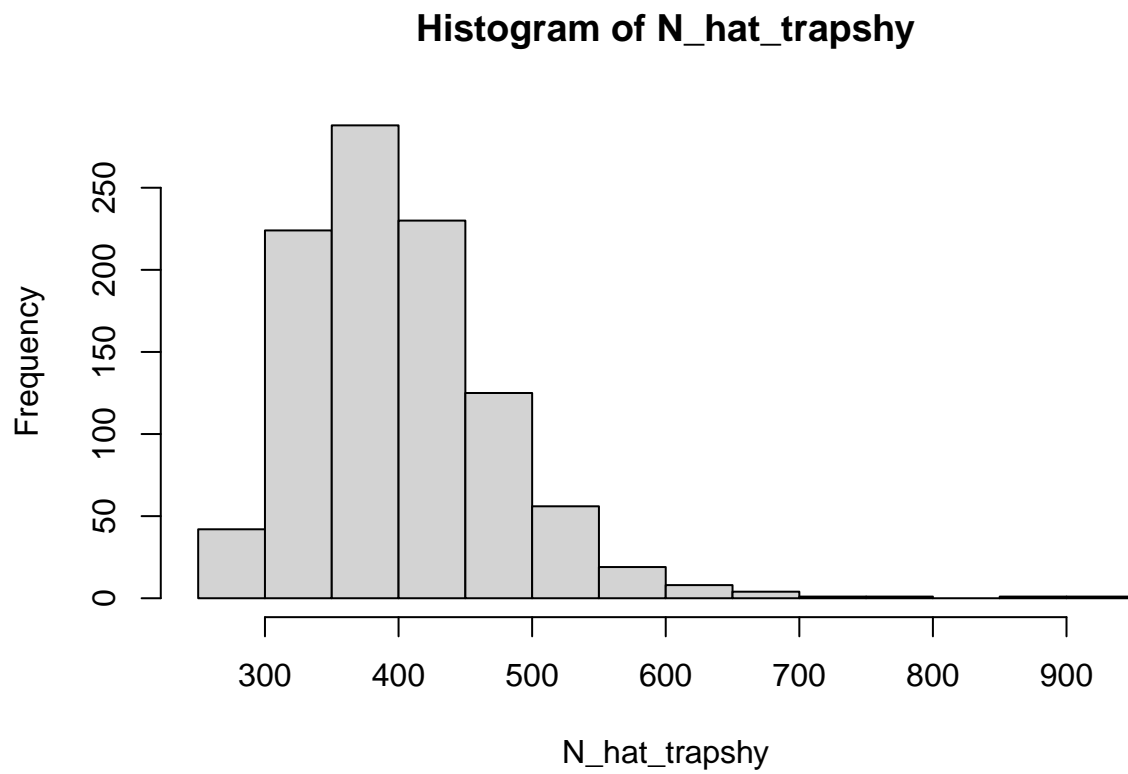
c. Calculate the bias and precision of the estimate.

```
## [1] -0.1301309
```

```
## [1] 10.5877
```

13.

b. Plot the histogram of this data.



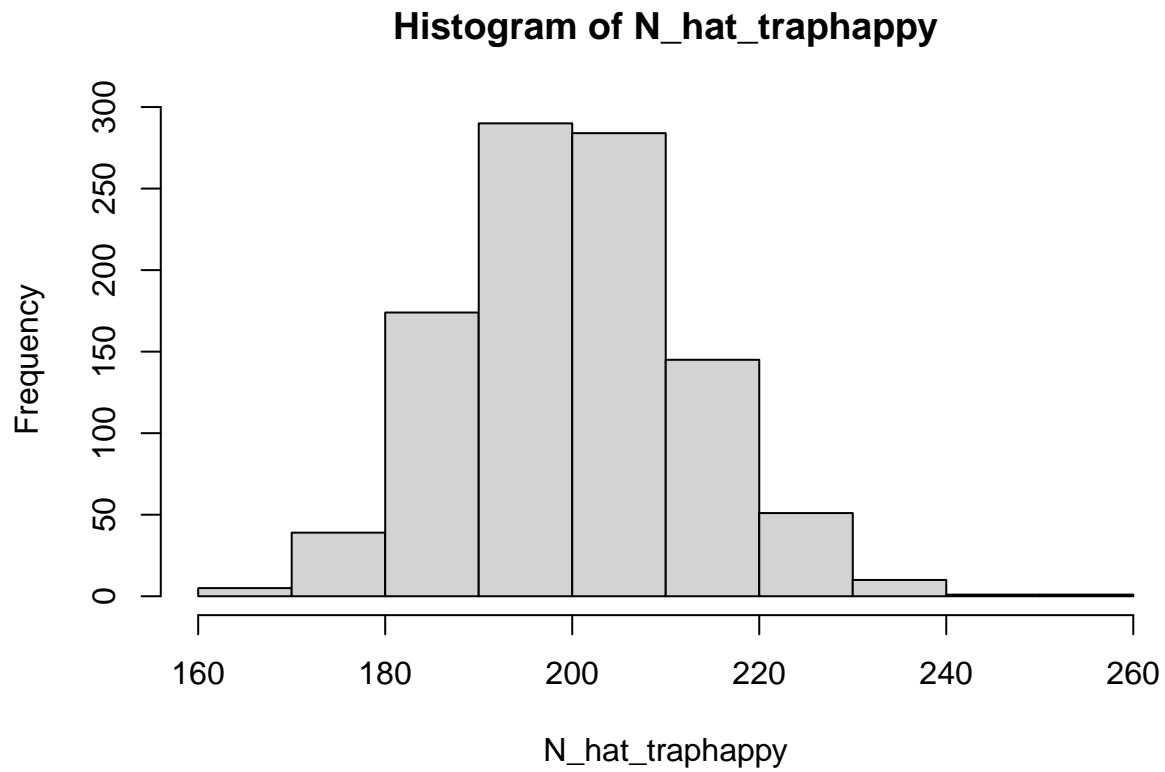
c. Calculate the bias and precision of the estimate.

```
## [1] 151.4914
```

```
## [1] 75.79121
```

14.

b. Plot the histogram of this data.



c. Calculate the bias and precision of the estimate.

```
## [1] -49.85716
```

```
## [1] 12.48725
```

17. Estimate the abundance of the population.

```
## [1] 54.76
```

18.

```
## [1] 36
```