Assignment 7: Who busts the Mythbusters?

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Exercise 1

-Explanatory variable: group (Control vs. Treatment)

-Response variable: yawn (yes/no)

-Success: yawn = yes

Exercise 2

-iv. The difference in proportions of yawns between the treatment and control groups

Exercise 3

yawn	group
no	Control
no	Control
no	Treatment
no	Control
no	Treatment
no	Control

Exercise 4

yawn	group
no	Control
no	Control
no	Treatment
no	Control
no	Treatment
no	Control

Exercise 5

yawn	group	replicate
yes	Control	1
no	Control	1
no	Treatment	1
no	Control	1
no	Treatment	1
no	Control	1

Exercise 6

replicate	stat
1	0.1360294
2	-0.1397059
3	0.1360294
4	-0.0477941
5	0.2279412
6	0.0441176

Exercise 7

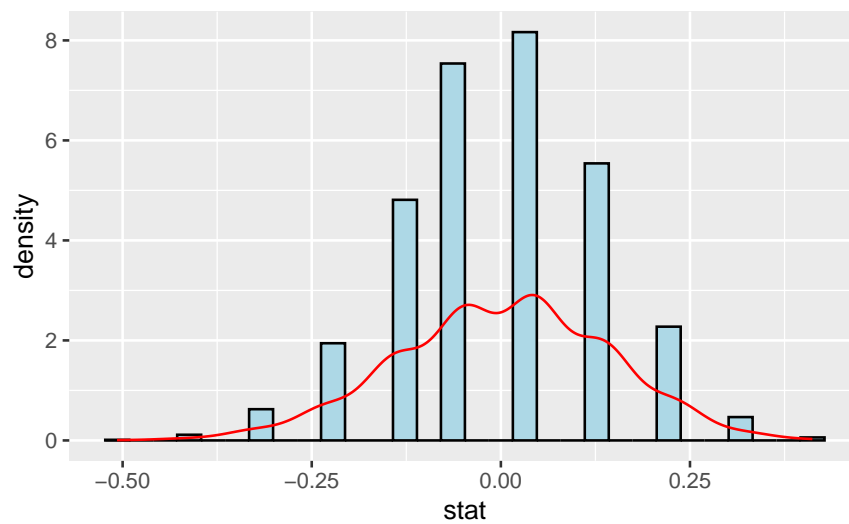| replicate	stat
1	-0.1397059
2	-0.0477941
3	0.2279412
4	-0.0477941
5	-0.0477941
6	-0.0477941

Exercise 8

-(i) Histogram of the null distribution ggplot(yawn_null, aes(x = stat)) + geom_histogram(bins = 30) -(ii) Density plot ggplot(yawn_null, aes(x = stat)) + geom_density() -(iii) Density plot with smoothing ggplot(yawn_null, aes(x = stat)) + geom_density(adjust = 5)

Exercise 9
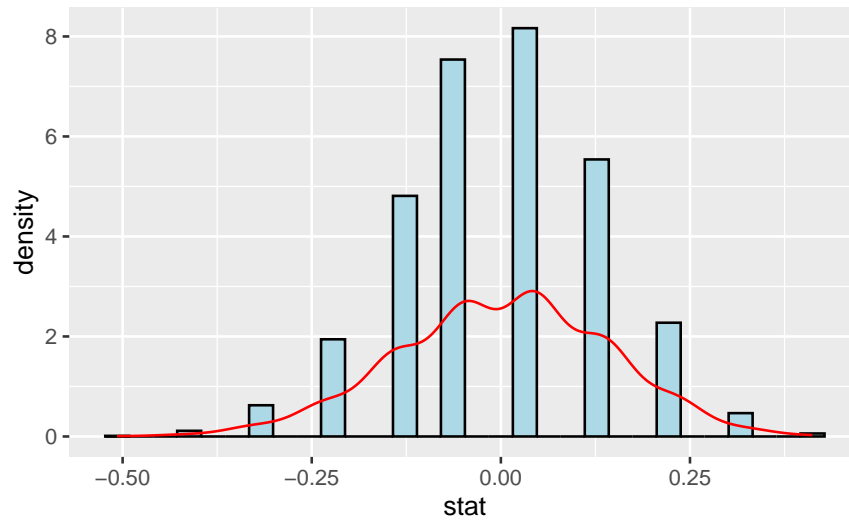
Exercise 10

Exercise 11

Academic Integrity statement