

1. What is your research hypothesis?

Intense intellectual effort will affect the level of blood cholesterol.

2. What is H<sub>o</sub>?

Intense intellectual effort will not affect the level of blood cholesterol

3. What is H<sub>a</sub>?

Intense intellectual effort will affect the level of blood cholesterol.

4. Is this a one or two-tailed test?

 $T_{\mathbf{wo}}$ 

5. What is the significance level and its critical value of Z?

p < .05, CV = 1.96

6. What is your best estimate of the population σ?

16

7. What is the Standard error of the mean?

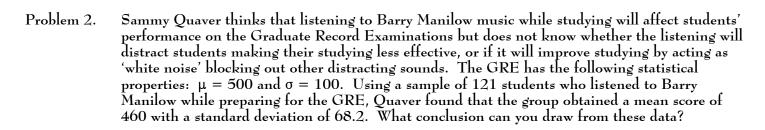
$$\frac{16}{\sqrt{36}} = 2.667$$

8. What is your calculated statistic?

$$Z = \frac{156 - 150}{2.667} = 2.25$$

9. What is your conclusion?

Reject the Null hypothesis. Intense intellectual effort increases the level of blood cholesterol.



1. What is your research hypothesis?

Listening to Barry Manilow music while studying will affect GRE scores.

2. What is H<sub>o</sub>?

Listening to Barry Manilow music will not affect GRE scores.

3. What is  $H_A$ ?

Listening to Barry Manilow music will affect GRE scores.

4. Is this a one or two-tailed test?

Two

5. What is the significance level and its critical value of Z?

p < .05, CV = 1.96

6. What is your best estimate of the population σ?

100

7. What is the Standard error of the mean?

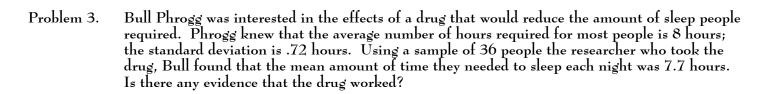
 $\frac{100}{\sqrt{121}} = 9.09$ 

8. What is your calculated statistic?

 $\frac{460-500}{9.09} = -4.40$ 

9. What is your conclusion?

Reject the null hypothesis. Listening to Barry Manilow music while studying for the GREs significantly lowers the scores.



1. What is Null Hypotheses H<sub>0</sub>?

The drug will not reduce the amount of sleep people need..

2. What is Alternative hypothesis,  $H_{\Delta}$ ?

The drug will reduce the amount of sleep people need.

3. Is this a one or two-tailed test?

One

4. What is the significance level and critical value or the test?

p < .05, CV = 1.64

5. What is the sampling distribution?

z

6. What is the standard error?

$$\frac{.72}{\sqrt{36}} = .12$$

7. What is Z?

$$\frac{7.7 - 8.0}{.12} = -2.50$$

8. What is your conclusion?

Reject the null hypothesis. The drug significantly reduces the amount of sleep a person needs.