

Week 8 Polling (18 min)

In hypothesis testing, a decision is made to reject the null hypothesis when:

The null hypothesis value is contained within the confidence interval

The null hypothesis value is outside of the confidence interval

A sample of scores is normally distributed with $M = 12$ and population standard error = 5. What is the 95% confidence interval for a one-sample z test?

[7.0, 17.0]

[3.8, 20.2]

[2.2, 21.8]

[10.0, 14.0]

$$12 \pm 1.96(5)$$

$$12 \pm 9.8$$

A sample of 20 scores is normally distributed with $M = 10$ and $s = 2$. What is the 95% confidence interval for a one-sample t-test?

[6.5, 13.5]

[9.1, 10.9]

[8.0, 12.0]

[5.8, 14.2]

$$10 \pm 2.093 \left(\frac{2}{\sqrt{20}} \right)$$

$$10 \pm 0.936$$

A researcher selects a sample and assigns participants to 1 of 2 groups. Scores in each group are normally distributed with $M1 = 35$ ($n1 = 10$), $M2 = 23$ ($n2 = 10$) and a pooled SE of 1.8. What is the 95% confidence interval for an independent samples t-test?

[6.2, 13.8]

[8.2, 15.8]

[10.2, 13.8]

[23.0, 35.0]

$$(35 - 23) \pm 2.101(1.8)$$

$$12 \pm 3.7818$$

A sample of 16 difference scores is normally distributed with a mean of 14.8 and standard deviation of 3. What is the 95% confidence interval for a related-samples t-test?

[11.8, 17.8]

$$14.8 \pm 2.131 \left(\frac{3}{\sqrt{16}} \right)$$

$$14.8 \pm 1.59825$$

[13.2, 16.4]

[8.4, 21.2]

[9.6, 21.0]



1812 ± 0.1
20882.1 ± 0.1