

Part 5.1 Questions

Fill in the blanks below. With each question the blanks get slightly bigger.

- Claim:** "Majority of kiwi school students bring their own device to school"

Percentage from Survey: 65% bring own device to school.

Sample Size: 1000

Margin of Error: $\frac{1}{\sqrt{n}} = \frac{1}{\sqrt{\quad}} = \quad$ (3sf) = $\quad\%$

Construct the confidence interval: $\quad\% \pm \quad\% = (\quad\%, \quad\%)$

Interpret what this Means: We can say, with 95% confidence, that the percentage of kiwi school students who bring their own device to school is somewhere between $\quad\%$ and $\quad\%$.

Make a Judgement: The percentage of kiwi school students who bring their own device to school could be as low as $\quad\%$, and so this confidence interval \quad support a claim of over 50% as implied by the "majority" statement.
- Claim:** "Over half of people support the new law"

Percentage from Survey: 54% support the new law

Sample Size: 300

Margin of Error: $\frac{1}{\sqrt{n}} = \frac{1}{\sqrt{\quad}} = \quad$ (3sf) = $\quad\%$

Construct the confidence interval: $\quad\% \pm \quad\% = (\quad\%, \quad\%)$

Interpret what this Means: It is a fairly safe bet that the percentage of people who support the new law is somewhere between $\quad\%$ and $\quad\%$.

Make a Judgement: The percentage of \quad could be as low as $\quad\%$, and so this confidence interval \quad support a claim of over 50% as implied by the "majority" statement.
- Claim:** "Less than half of New Zealanders have an iPhone"

Percentage from Survey: 36% have an iPhone

Sample Size: 100

Margin of Error: $\frac{1}{\sqrt{n}} = \frac{1}{\sqrt{\quad}} = \quad = \quad\%$

Construct the confidence interval: $\quad\% \pm \quad\% = (\quad\%, \quad\%)$

Interpret what this Means: I am fairly sure that the percentage of \quad is somewhere between $\quad\%$ and $\quad\%$.

Make a Judgement: The percentage of \quad could be as \quad as $\quad\%$, and so this confidence interval \quad support a claim of \quad 50% as implied by the " \quad " statement.
- Claim:** "Majority of kiwi school students have a Facebook account"

Percentage from Survey: 51% have a Facebook account

Sample Size: 1000

Margin of Error: $\frac{1}{\sqrt{n}} = \frac{1}{\sqrt{\quad}} = \quad = \quad\%$

Construct the confidence interval: $\quad\% \pm \quad\% = (\quad\%, \quad\%)$

Interpret what this Means: \quad is somewhere between $\quad\%$ and $\quad\%$.

Make a Judgement: The percentage of \quad could be as \quad as $\quad\%$, and so this confidence interval \quad support a claim of \quad 50% as implied by the " \quad " statement.