

Z-Test Exercises

Research question and hypotheses	Choose The Correct Test	Evidence & Test Statistic	Decision Rule ($\alpha = 0.05$)	Conclusion
<p>A researcher is interested in finding out whether the average life time of female in US is different from 75 years.</p> <p>H_0:</p> <p>H_a:</p>	<p>Right-sided</p> <p>Left-sided</p> <p>Two-sided</p>	<p>Sample mean: 76</p> <p>Sample s.d.: 7</p> <p>Sample size: 100</p> <p>$Z =$</p> <p>p-value =</p>	<p>Reject H_0 if</p> <p>C.V.</p> <p>p-value</p>	
<p>A researcher is interested in finding out whether the average regular gasoline price is higher than \$2.45 in Mid-West region.</p> <p>H_0:</p> <p>H_a:</p>	<p>Right-sided</p> <p>Left-sided</p> <p>Two-sided</p>	<p>Sample mean: \$2.65</p> <p>Sample s.d.: \$.45</p> <p>Sample size: 64</p> <p>$Z =$</p> <p>p-value =</p>	<p>Reject H_0 if</p> <p>C.V.</p> <p>p-value</p>	
<p>A researcher is interested in finding out whether the average hours of exercise for adults in US per week is less than 0.5 hour.</p> <p>H_0:</p> <p>H_a:</p>	<p>Right-sided</p> <p>Left-sided</p> <p>Two-sided</p>	<p>Sample mean: 0.21</p> <p>Sample s.d.: 1.1</p> <p>Sample size: 36</p> <p>$Z =$</p> <p>p-value =</p>	<p>Reject H_0 if</p> <p>C.V.</p> <p>p-value</p>	

t-Test Exercises

Research question and hypotheses	Choose The Correct Test	Evidence & Test Statistic	Decision Rule ($\alpha = 0.05$)	Conclusion
<p>A researcher is interested in finding out whether the average life time of female in US is different from 75 years.</p> <p>H_0:</p> <p>H_a:</p>	<p>Right-sided</p> <p>Left-sided</p> <p>Two-sided</p>	<p>Sample mean: 78.2</p> <p>Sample s.d.: 7</p> <p>Sample size: 9</p> <p>$t =$</p> <p>p-value =</p>	<p>Reject H_0 if</p> <p>C.V.</p> <p>p-value</p>	
<p>A researcher is interested in finding out whether the average regular gasoline price is higher than \$2.45 in Mid-West region.</p> <p>H_0:</p> <p>H_a:</p>	<p>Right-sided</p> <p>Left-sided</p> <p>Two-sided</p>	<p>Sample mean: \$2.65</p> <p>Sample s.d.: \$.35</p> <p>Sample size: 25</p> <p>$t =$</p> <p>p-value =</p>	<p>Reject H_0 if</p> <p>C.V.</p> <p>p-value</p>	
<p>A researcher is interested in finding out whether the average hours of exercise for adults in US per day is less than 0.5 hour.</p> <p>H_0:</p> <p>H_a:</p>	<p>Right-sided</p> <p>Left-sided</p> <p>Two-sided</p>	<p>Sample mean: 0.21</p> <p>Sample s.d.: 0.5</p> <p>Sample size: 16</p> <p>$t =$</p> <p>p-value =</p>	<p>Reject H_0 if</p> <p>C.V.</p> <p>p-value</p>	