|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Null Hypothesis *P* = | **0.58** |  |  |  |
| Level of Significance | **0.05** |  |  |  |
| Number of Successes | **10** |  |  |  |
| Sample Size | **19** |  |  |  |
|  |  |  |  |  |
| *Sample Proportion* | *0.53* | *(computed from Successes / Sample Size)* | | |
|  |  |  |  |  |
| *Z Test Statistic (Computed)* | *-0.47* |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Direction of Test | Lower Crit Value | Upper Crit Value | *p*-Value | Decision |
|  |  |  |  |  |
| Two-Tailed Test | **-1.9600** | **1.9600** | **0.6354** | **Do not reject the null hypothesis** |
| **HA: P <> 0.58** |  |  |  |  |
|  |  |  |  |  |
| Upper-Tail Test | **n/a** | **1.6449** | **0.6823** | **Do not reject the null hypothesis** |
| **HA: P > 0.58** |  |  |  |  |
|  |  |  |  |  |
| Lower-Tail Test | **-1.6449** | **n/a** | **0.3177** | **Do not reject the null hypothesis** |
| **HA: P < 0.58** |  |  |  |  |
| H0: P ≤ .58  Ha: P > .58 |  |  |  |  |
|  | | | | |
| **Conclusion: there is insufficient evidence to conclude that HA is true and we do not reject the null hypothesis**  **This is due to the fact that the Z test statistic is lower than the upper critical value and the P-value is > than the level of significance.**  Number of successes: 10 people answered no to our last question as no, and therefore the failures are seen as successes | | | | |
|  | | | | |