Lesson 17: Inference for One Proportion

Homework

## Solutions

**Please note that the steps show rounded numbers, but that the final answers to the problems are calculated without rounding.**

|  |  |  |
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| Problem | Part | Solution |
| 1 | - | The requirements are met. |
| 2 | - |  |
| 3 | - | (0.067, 0.173) We are 90% confident that the true proportion of peanuts in the can is between 6.7% and 17.3%. |
| 4 | - | Since both conditions are true, we conclude that is sufficiently large so that will be approximately distributed. |
| 5 | - |  |
| 6 | - |  |
| 7 | - |  |
| 8 | - |  |
| 9 | - | NormalProbApplet |
| 10 | - | reject the null hypothesis |
| 11 | - | There is sufficient to suggest that the proportion of peanuts in the can is less than 20%. |
| 12 | - | (0.023, 0.024) We are 95% confident that the true proportion of the population who die after contracting H1N1 is between 2.3% and 2.4%. |
| 13 | - | (0.547, 0.639) We are 95% confident that the true proportion of the population who die after contracting H5N1 is between 54.7% and 63.9%. |
| 14 | - | The bird flu (H5N1) is by far more deadly! More than half of those who contract the bird flu will die, compared to only 2 to 3% of those who are infected with the swine flu. Fortunately for us, the bird flu is currently onlypassed to humans through contact with infected birds. Epidemiologists are concerned about a global pandemic of this disease, which would almost surely happen if the virus mutates to allow human-to-human transmission. |
| 15 | - |  |
| 16 | - |  |
| 17 | - | pie bar |
| 18 | - | Since both conditions are true, we conclude that is sufficiently large so that will be approximately distributed. |
| 19 | - |  |
| 20 | - |  |
| 21 | - |  |
| 22 | - |  |
| 23 | - | fail to reject the null hypothesis |
| 24 | - | There is insufficient to suggest that the proportion of adults who received a phishing email in 2012 is different than 43%. |