Lesson 16: Describing Categorical Data (Proportions)

Preparation

## 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 | - | b. Pie Charts d. Bar Charts |
| 2 | - | n = total sample size x = number of individuals in sample with the characteristic you are focusing on. |
| 3 | - | P or the population proportion |
| 4 | - | n = total sample size p = the true population proportion, which is also the mean of the distribution of |
| 5 | - | Answers may vary: Categorical data groups the individuals in your study into categories, while numerical data assigns numbers to the individuals in your study. These numbers are a subset of the real numbers and can be discrete or continuous. |
| 6 | - | Pie |
| 7 | - | Bar |
| 8 | - | Your answers could vary. You could’ve used proportions to describe the data, described the data in words, or displayed a frequency table. **Freshman**: Count=8, =0.0437 **Sophmore**: Count=75, =0.4098 **Junior**: Count=59, =0.3224 **Senior**: Count=39, =0.2131 **Other**: Count=2, =0.0109 |
| 9 | A | The mean is 7% or 0.07 in this sample and the standard deviation is 0.0093 |
| 9 | B | z= 1.073 |
| 9 | C | Area = 0.1416 |