

AP STATISTICS GUIDED NOTES CH. 7

7.2 Sampling Distribution of a Sample Proportion

Read 432–435

In the context of the Candy Machine Applet, explain the difference between the distribution of the population, the distribution of a sample, and the sampling distribution of the sample proportion.

Based on the Candy Machine Applet and the Penny Activity, describe what we know about the shape, center, and spread of the sampling distribution of a sample proportion.

When is it OK to say that the distribution of \hat{p} is approximately Normal?

Read 436–437

What are the mean and the standard deviation of the sampling distribution of a sample proportion? Are these formulas on the formula sheet? Are there conditions that need to be met for these formulas to work?

Refer to the “10% condition” Read 437–439

Alternate Example: The superintendent of a large school district wants to know what proportion of middle school students in her district are planning to attend a four-year college or university. Suppose that 80% of all middle school students in her district are planning to attend a four-year college or university. What is the probability that an SRS of size 125 will give a result within 7 percentage points of the true value?

HW: page 430 (18, 20, 21–24), page 439 (27, 29, 31, 35, 37, 39)