

Math 130: Introductory Statistics
Quiz: Hypothesis testing

Suppose the time it takes to read the first chapter of Harry Potter is recorded for 39 fifth graders. The average time was 42 minutes and the sample standard deviation is 18 minutes. Test the claim (with $\alpha = 0.05$) that it takes fifth graders less than 45 minutes to read the first chapter.

1. Write down the null and alternative hypotheses.
2. Find the critical region (and draw the picture).
3. Compute the test statistic.
4. Decide to reject or fail to reject.
5. Say in plain English the result.
6. Compute the p-value.
7. Interpret the p-value.