

# 11.1 Tests About a Population Mean

Michael Brodskiy

Instructor: Mr. Thompson

March 14, 2022

The screenshot shows a quiz interface for a statistics course. The top navigation bar includes a bell icon, a dropdown menu for "11.1 tests about a population mean", and the user's name "Michael Brodskiy". Below this, a breadcrumb trail reads: "Statistics AP-Thompson-Year-12462 (66479) > Activities and Due Dates > 11.1 tests about a population mean".

The main content area is divided into three sections:

- Left Sidebar:** A list of 17 questions. Question 1 is highlighted in blue and shows a score of 95% (Correct). Questions 2 through 7 are also listed with scores of 100% (Correct). Questions 8 through 17 are listed with scores of 95% (Correct).
- Top Bar:** Displays "Assignment Score: 97.8%", "Resources", "Give Up?", "Solution", and a "Next Question" button.
- Question Area:** Displays "Question 1 of 17". The question text reads: "The Survey of Study Habits and Attitudes (SSHA) is a psychological test with scores that range from 0 to 200. The mean score for U.S. college students is 115. A teacher suspects that older students have better attitudes toward school. She gives the SSHA to an SRS of 45 students from the more than 1000 students at her college who are at least 30 years of age. The teacher wants to perform a test at the  $\alpha = 0.05$  significance level of  $H_0 : \mu = 115$  ;  $H_a : \mu > 115$  where  $\mu$  = the mean SSHA score in the population of students at her college who are at least 30 years old. Are the conditions for this significance test met?"

The question area contains five radio button options:

- ☐ No, because the Random condition is not met.
- ☐ No, because we do not know if the population distribution is approximately Normal.
- ☒ Yes, all of the conditions are met.
- ☐ No, because the 10% condition is not met.
- ☐ No, because the Large Sample condition is not met.

On the right side of the question area, there is a "My Attempt" dropdown menu.