Content Standards:
-To describe the properties of the normal distribution.
-To use the normal distribution to calculate probabilities as well as statistics associated with intervals within the normal distribution.

Process Standards:
-Students will demonstrate effective communication skills when presenting information in written form.

Task:
Below you will find the work another student did to answer the following problem. The student made a mistake when they solved the problem. Find the student’s mistake, explain to them what they should have done, and correctly solve the problem.

As an admissions officer for the University of Illinois, you decide who will be accepted into the freshman class. The new university guidelines allows only students that score within the top 10% of students taking the ACT to be considered for admission. This year’s test has a mean score of 23 and a standard deviation of 2.5.

What is the lowest ACT score needed in order to be considered for admission?

Student Work:

1. What mistake did the student make when solving the problem?
2. What should the student have done instead? Explain to the student how they should have solved the problem.

3. Solve the problem correctly.