

Prep #19: Normal distributions

1. There are 400 students in the senior class at Oak Creek High School. All of these students took the SAT. The distribution of their SAT scores is approximately normal. Find the number of students who scored within 2 standard deviations of the mean, rounded to the *nearest whole* student.

2. The scores on a mathematics college-entry exam are normally distributed with a mean of 68 and standard deviation 7.2. Students scoring higher than one standard deviation above the mean will not be enrolled in the mathematics tutoring program.
 - (a) Calculate the maximum score for students in the tutoring program.

 - (b) Sketch and label the distribution of student scores.

 - (c) Calculate the proportion of all students that will be enrolled for tutoring.

 - (d) How many of the 750 incoming students can be expected to be enrolled in the tutoring program?