Twenty five high school students complete a preparation program for taking the SAT test. We know that the overall average for SAT scores is 500 with a standard deviation of 100. Here are the SAT scores from the 25 students who completed the SAT prep program:

## 434 694 457 534 720 400 484 478 610 641 425 636 454 514 563 370 499 640 501 625 612 471 598 509 531

Are these students' SAT scores significantly greater than a population mean of 500 with a population standard deviation of 100?

Solution: