

Warm-up:

At one high school the mean time for running the 100-yard dash is 15.2 seconds with a standard deviation of 0.9 seconds. The data closely approximates a normal curve.

1. Find the probability of having a student chosen at random having a time less than 14.1 seconds.
2. What is the range of times to have a time in the middle 40%?
3. If 25 runners are chosen at random, what is the probability that the mean of the sample will be greater than 15.8 second?