

Name:

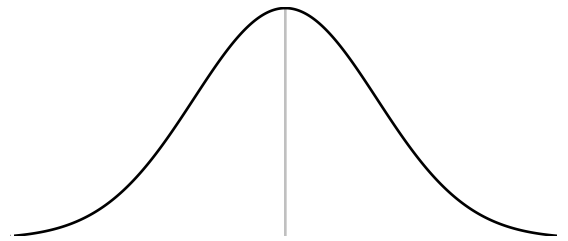
Statistics

Date:

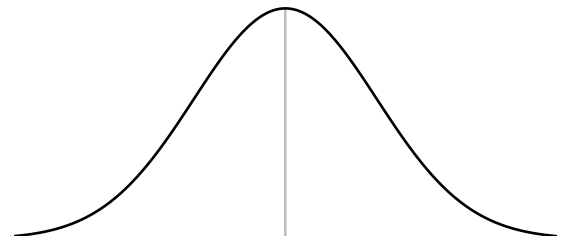
Practice Quiz 6-D

1. Assume that high schoolers' reaction times are normally distributed with $\mu = 240$ and $\sigma = 33.5$ milliseconds. Mary-Grace times 30 students.

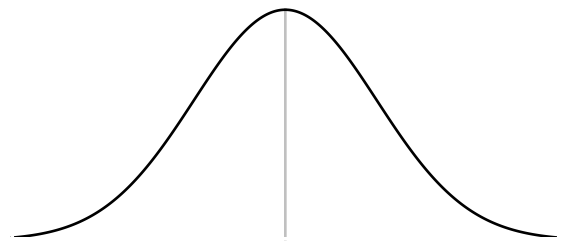
a) Dennis's reaction time is 235.2 milliseconds. What percent of times are expected to be faster than his?



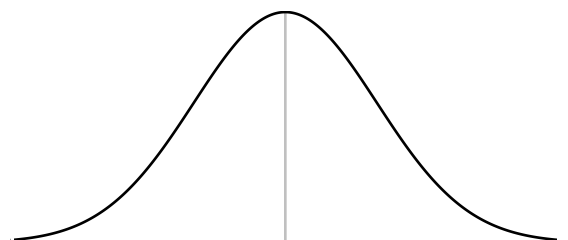
b) What reaction time is needed to be in the fastest 5% of speeds?



c) The average of the 30 students is 235.2 milliseconds. How likely is it that the next random group of 30 students will average this fast or faster?



d) How fast would the the 30-student average have to have been for the answer to (c) to be below 5%?



2. Anthony also times 10 students. For each range, state whether Mary-Grace's 30-time average or Anthony's 10-time average is more likely to fall within it, given $\mu = 240$.

a) $\bar{x} > 280$

b) $\bar{x} > 230$

c) $210 < \bar{x} < 235$

d) $210 < \bar{x} < 240$