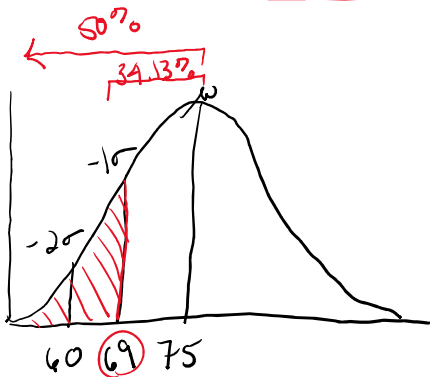


Z distribution practice problems

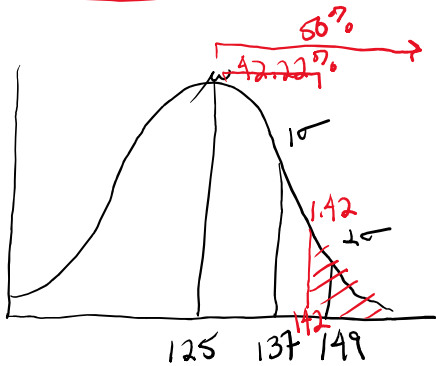
1. Given a normally distributed population with a mean of 75 and a standard deviation of 6, how likely is it that you could randomly draw a score less than 69?



$$Z_{69} = \frac{69 - 75}{6} = -1.0$$

$$\begin{array}{r} 50.00 \\ - 34.13 \\ \hline 15.87\% \end{array}$$

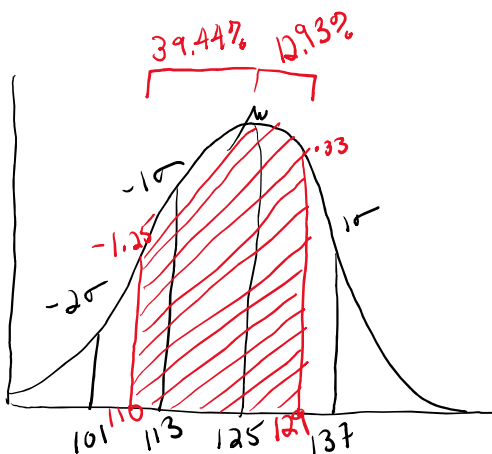
2. With a normally distributed population, mean = 125 and std. dev. = 12, how likely is it that you could randomly draw a score greater than 142?



$$Z_{142} = \frac{142 - 125}{12} = 1.42$$

$$\begin{array}{r} 50.00 \\ - 42.22 \\ \hline 7.78\% \end{array}$$

3. Using the parameters in #2, how likely is it that you could randomly draw a score between 110 and 129?



$$Z_{110} = \frac{110 - 125}{12} = -1.25$$

$$Z_{129} = \frac{129 - 125}{12} = .33$$

$$\begin{array}{r} 39.44 \\ + 12.93 \\ \hline 52.37\% \end{array}$$