$Sheila'measured\ \beta, a\ glucose\ level\ after\ ingesting\ the\ sugary\ drink.$

$$\beta \sim N_{a;\sigma^2}, a = 125, \sigma = 10$$

From the task conditions we have:

$$(P\{\beta > L\})^2 = 0.05; P\{\beta > L\} = 1 - P\{\beta < L\} = 1 - N_{a;\sigma^2}(L) = 1 - \Phi\left(\frac{L-a}{\sigma}\right),$$

$\Phi\ is\ the\ cdf\ of\ the\ normal\ distibution\ with\ parameters$

$$a = 0; \sigma = 1;$$

$$\Phi\left(\frac{L-a}{\sigma}\right) = 1 - \sqrt{0.05} = 0.7763$$

To solve this equation, we use a table of values of the cdf of the normal distribution $(\Phi(t) = 0.7763)$:

According to the table we have $t = 0.76$:

$$t = \frac{L-a}{\sigma} = 0.76;$$

$L = 0.76\sigma + a = 7{,}6 + 125 = 132.6.$

Answer: 132.6.