In the same population of 60 year old men with µ=29 and σ=6. What is the probability that a male age 60 has BMI over 40?

We are asked for a **90%** confidence interval, so the critical t value from the table is 1.833.

The mean is 27.26 and the standard deviation is 2.10.

The sample size is 10, so df=10-1=9.

We can plug these into the equation:

$$90\% Confidence Interval= \overbar{x\pm 1.833√{σ}/{n}}=27.26\pm 1.833\left({2.10}/{\sqrt{10}}\right)=27.26\pm 1.22=(26.04, 28.48)$$