

Let $\bar{x} :=$ the mean of the values

(we assume x is normally distributed

$s :=$ the std. dev. of the values

$n :=$ the number of samples

$\mu :=$ the target mean

Then:

$$t := \frac{\bar{x} - \mu}{(s/\sqrt{n})}$$

t is on the Student's t-distribution

with $n-1$ degrees of freedom

$$p := Pr(T > t)$$