

Assignment-18.1

In the given problem, the population mean is 100.

$$H_0: \mu = 100$$

$$H_1: \mu > 100.$$

Setting up the significance level, let us assume it as 5% (0.05).

Now computing the random chance probability using Z score and Z-table.

$$Z = \frac{x - \mu}{\sigma}$$

μ = mean

σ = standard deviation.

$$\therefore Z = \frac{(108 - 100)}{(15/\sqrt{36})} = 3.2.$$

The p-value associated with 3.2 is 0.9993

i.e. probability of having value less than 108 is 0.9993.

and more than or equal to 108 is $(1 - 0.9993) = 0.0007$.

It is less than 0.05, so we reject the Null hypothesis i.e. there is raw corn starch effect.