**Assignment 18.1**

Blood glucose levels for obese patients have a mean of 100 with a standard deviation of 15. A researcher thinks that a diet high in raw cornstarch will have a positive effect on blood glucose levels. A sample of 36 patients who have tried the raw cornstarch diet have a mean glucose level of 108. Test the hypothesis that the raw cornstarch had an effect or n not.

H0 :Null Hypothesis = x\_bar = 100

HA: Alternate Hypothesis <> 100

Two tailed test

I am considering 0.05 significance level to reject the null

hypothesis

Left Tail : z\_critic = -1.95

Right Tail : z\_critic =1.95

n = 36

x\_bar = 100

x1\_bar = 108

std. dev. = 15

If z is less than -1.95 or greater then 1.95 then reject the null hypothesis.

z = (x1\_bar – x\_bar)/(std.dev./sqrt(n))

= (108-100)/(15/sqrt(36))

= 8/(15/6)

= 8/(5/2)

= 8/2.5

= 3.2

Since value of z is greater the z\_critic = 1.95, hence we are rejecting the claim that raw cornstarch do not have any effect on the blood glucose level.