

$$M_0 = 100$$

$$\sigma = 15$$

$\alpha$

$$\bar{x} = 108$$

$H_0$ : glucose level not increased.

$$\text{size} = 36$$

$\Rightarrow$  one tail test.

since size > 36, we go for 2-test.

$$Z = \frac{108 - 100}{15/\sqrt{36}} = \frac{8}{15/6} = 3.2$$

$$P(Z = 3.2) = 0.9993.$$

$\Rightarrow$  glucose level increased with 0.9993 probability.

$$\text{my-score} = 1100.$$

$$\mu = 1026$$

$$\sigma = 209.$$

$$\text{So, } z\text{-value} = \frac{1100 - 1026}{209}$$

$$= 0.354$$

$\Rightarrow$  my score is 0.354 std-dev further from population mean.