

**LEARN BY DOING:** State the Hypotheses for a test for a population mean

A research study measured the pulse rates of 57 college men and found a mean pulse rate of 70 beats per minute with a standard deviation of 9.85 beats per minute.

Researchers want to know if the mean pulse rate for all college men is different from the current standard of 72 beats per minute.

The null and alternative hypotheses in this case are:

SELECT (A)  $H_0: \mu = 70$ , and  $H_a: \mu < 70$

SELECT (B)  $H_0: \mu = 72$ , and  $H_a: \mu < 72$

SELECT (C)  $H_0: \mu = 70$ , and  $H_a: \mu > 70$

SELECT (D)  $H_0: \mu = 72$ , and  $H_a: \mu > 72$

SELECT (E)  $H_0: \mu = 70$ , and  $H_a: \mu \neq 70$

SELECT (F)  $H_0: \mu = 72$ , and  $H_a: \mu \neq 72$