

To find the test value we need to test the hypothesis

$$H_0: \mu = 400$$

$$H_1: \mu > 400$$

Test statistics is calculated using the formula:

$$t = \frac{\bar{x} - \mu_0}{s/\sqrt{n}}$$

In this particular case we have such values:

$$\bar{x} = 430$$

$$\mu_0 = 400$$

$$n = 40$$

$$s = 80$$

Thus

$$t = \frac{\bar{x} - \mu_0}{s/\sqrt{n}} = \frac{430 - 400}{80/\sqrt{40}} = 2.372$$