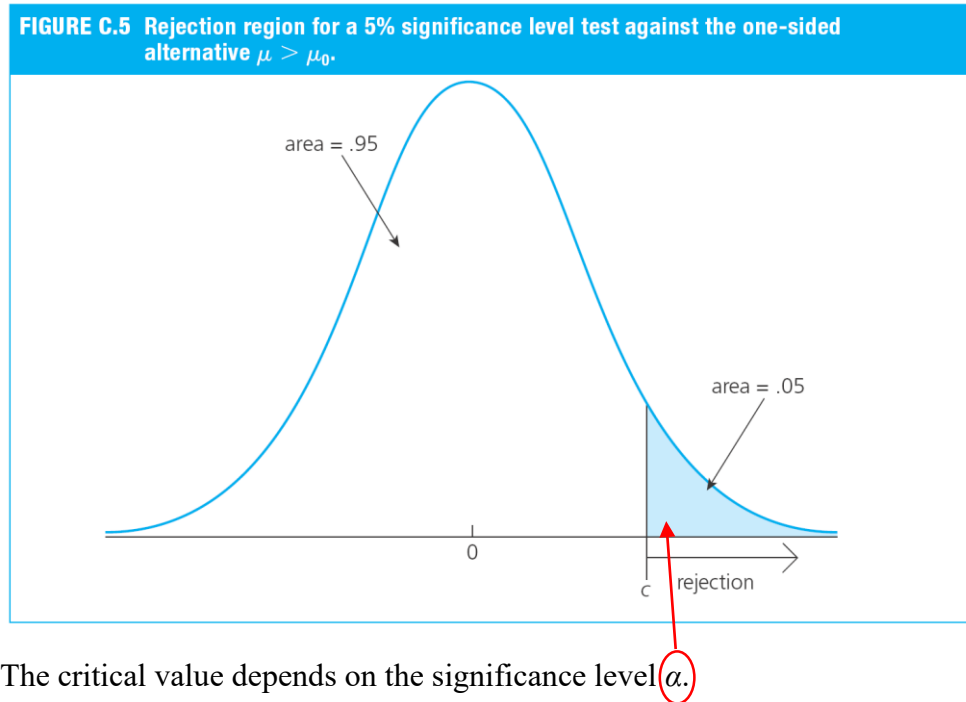


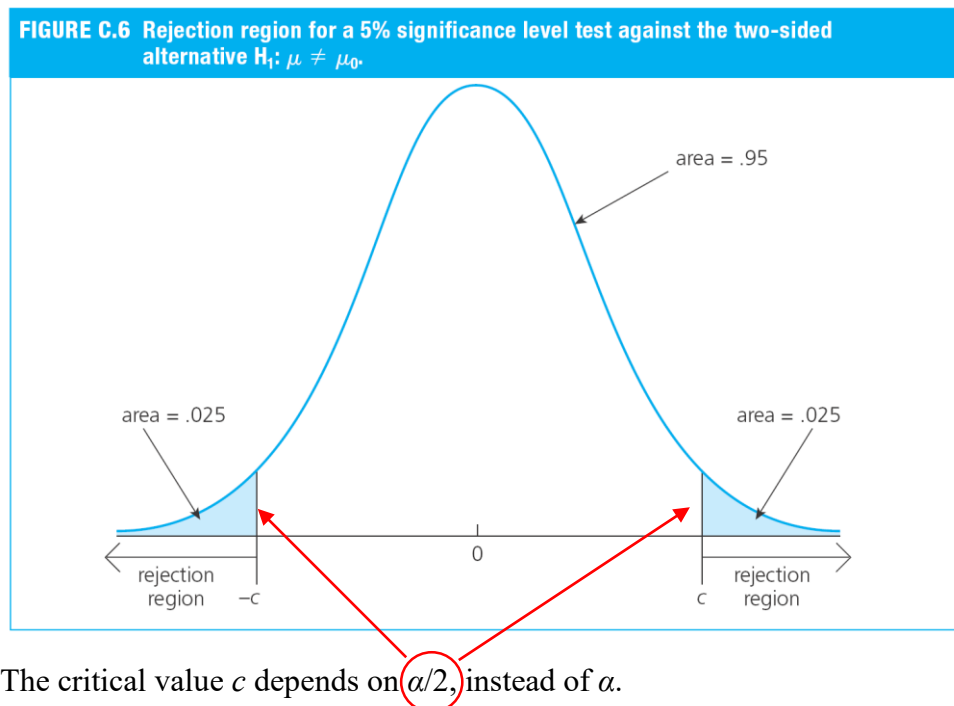
A comparison of one-tailed and two-tailed critical values (denoted by c) and p -values

1. Critical values (c)

- One-tailed test ($\alpha = 0.05$)

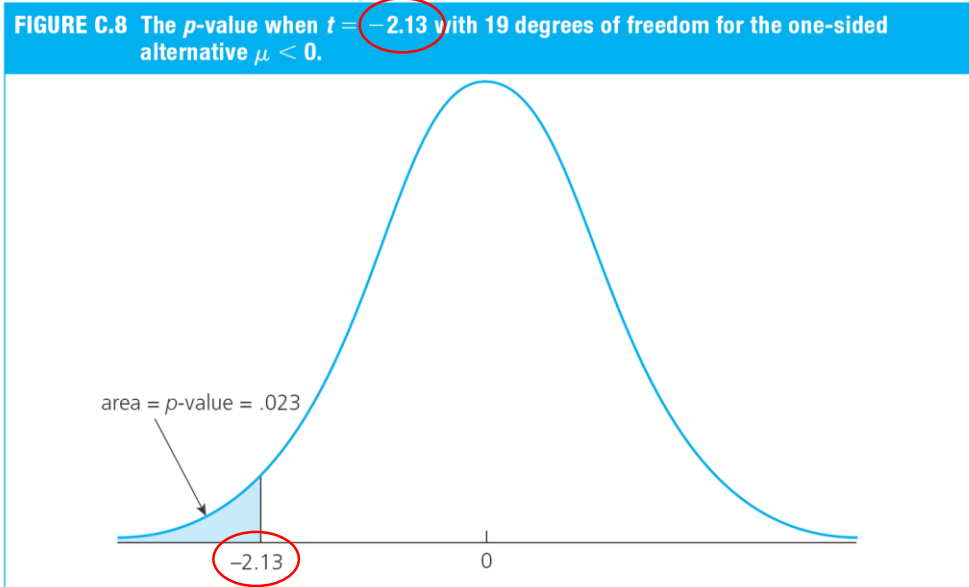


- Two-tailed test ($\alpha = 0.05$)



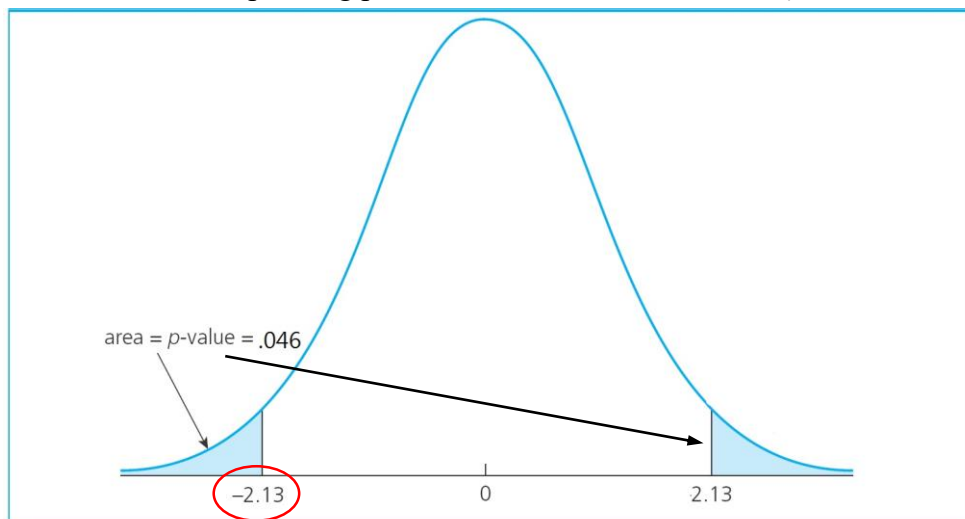
2. p -values

- One-tailed test



- Two-tailed test

Below is the corresponding plot for the two-sided alternative $\mu \neq 0$.



Note: two-tailed p -value = $2 \times$ one-tailed p -value