One-side and two-side tests

For one-side (one-tailed) tests the statistic (t) is calculated in the same way as in the two-tailed test but the rejection criterion is defferent.

A one-side test is characterized by a $>$ or $<$ sign on the alternative hypothesis. In the table below the two specifications at the bottom are one-side tests.

Rejection criteria-Test for the mean

Hypothesis	t-statistic	Rejection region
$H_0 : \mu = \mu_0$ $H_1 : \mu \neq \mu_0$	$\frac{\bar{x}-\mu_0}{s/\sqrt{n}}$	$\mid t \mid \geq t_\nu, \frac{\alpha}{2}$
$H_0 : \mu \geq \mu_0$ $H_1 : \mu < \mu_0$	$\frac{\bar{x}-\mu_0}{s/\sqrt{n}}$	$t \leq -t_\nu, \alpha$
$H_0 : \mu \leq \mu_0$ $H_1 : \mu > \mu_0$	$\frac{\bar{x}-\mu_0}{s/\sqrt{n}}$	$t \geq t_\nu, \alpha$