11	11	11
12	11.3	11.5

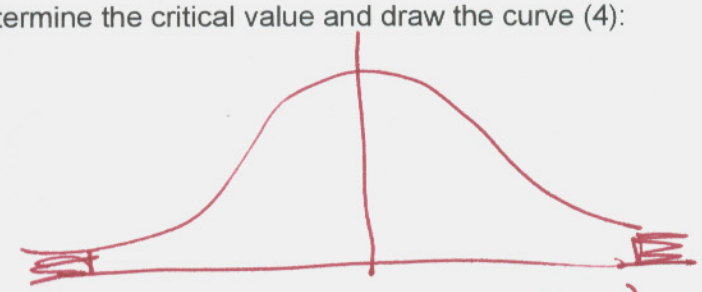
Researchers wanted to study the effect of aspirin on blood clotting time. They randomly selected 12 subject and measured the blood clotting time in seconds, first without taking aspirin and then with aspirin. Test the claim that aspirin affects the time it takes for a clot for form at the alpha = .05 level. Data shows that the distribution of blood clotting time is normal.

Null hypothesis (1): $H_0: \mu_d = 0$

Alternate hypothesis (1): $H_A \ \mu_d \neq 0$

Level of significance: $\alpha = .05$

Determine the critical value and draw the curve (4):



$t_{\alpha/2} = .025$

$df = 12 - 1 = 11$

$t_{CRITICAL} = -2.201$ $\quad \mu_d = 0$ $\quad t_{CRITICAL} = 2.201$

Decision rule (2):

Reject H_0 if $t_{TEST} > 2.201$

$t_{TEST} < -2.201$

Test statistic (4):

$$t_T = \frac{\bar{X}_d - 0}{S/\sqrt{n}}$$

Make a decision and interpret the results (2):

$t_T = 0.73998$

Do not reject H_0

There is no difference in blood clotting time