1.

Find the critical value and rejection region for the type of t-test with level of significance α and sample size n.

Right-tailed test, α = 0.1, n = 21

t0 = 2.528; t > 2.528

t0 = 1.323; t > 1.323

t0 = 1.325; t > 1.325

t0 = 1.325; t < 1.325

4.

Test the claim about the population mean μ at the level of significance α. Assume the population is normally distributed.

Claim μ > 33; α = 0.005. Sample statistics: = 34, s = 3, n = 25

t0 = -2.797, standardized test statistic ≈ -1.667, fail to reject H0; There is not sufficient evidence to support the claim

t0 = 2.797, standardized test statistic ≈ 1.667, reject H0; There is sufficient evidence to reject the claim

t0 = 2.797, standardized test statistic ≈ 1.667, fail to reject H0; There is not sufficient evidence to support the claim

5.

Find the critical value and rejection region for the type of t-test with level of significance α and sample size n.

Left-tailed test, α = 0.1, n = 22

 t0 = -2.518; t < -2.518

t0 = -1.321; t < -1.321

t0 = 1.323; t > 1.323

t0 = -1.323; t < -1.323

6.

Find the critical value and rejection region for the type of t-test with level of significance α and sample size n.

Two-tailed test, α = 0.1, n = 23

t0 = -1.717, t0 = 1.717; t < -1.717, t > 1.717

t0 = -1.321, t0 = 1.321; t < -1.321, t > 1.321

t0 = -1.714, t0 = 1.714; t < -1.714, t > 1.714

t0 = 1.717; t > 1.717

 7.

Find the standardized test statistic t for a sample with n = 10, = 16.5, s = 1.3, and if Round your answer to three decimal places.

 -3.010

-2.189

-3.186

-2.617

8.

Find the standardized test statistic t for a sample with n = 12, = 21.7, s = 2.1, and if Round your answer to three decimal places.

-0.008

-0.825

-0.037

-0.381

9.

Find the standardized test statistic t for a sample with n = 12, = 31.2, s = 2.2, and α = 0.01 if Round your answer to three decimal places.

1.890

2.132

2.001

1.991