The "Aha!" moment for &

For a given significance level how do we built test? Suppose that we have a population that is normally distributed with unknown mean and standard dev 10. Question X~ N (m, 10) v > 20 Suppose we have SO samples. Construct a statistical test with Ho: M=100, H,= M>100 so that its significance level is 0,2 Reject
Reject

Allie

100 C? Solution: test statistic. 10/120 Reject Re Rejection Region: R < Z os = P(Reject when Ho is true) $= P\left(\frac{\bar{X} - 100}{10/150} > R\right)$ So we want to ful R so that P(23R)= a. This means we need to pick R: Za

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Try this on your own	
Question	Suppose that we have a population that is normally distributed with unknown st dev
Two-sidel test	Suppose we have 50 samples.
Ī	Construct a statistical test Two-rills with Ho: M=100, H,= M±100 so that its significance level is 0.2
100	so that its significance level
X-A SIM	Solution Test statistic: X-100
•	Rejection Region:

The "Aha!" moment for a

Try this on your own Suppose that we have a population that is normally distributed with unknown mean and unknown st dev Question Two-sided test Suppose we have 50 samples. Construct a statistical test Two-rill with Ho: M=100, H: (12 100) so that its significance level is 0,2 Solution Test statistic: X-100 Rejection Region: (-00,-t o.) U[to.,00) Since q= P(-to.1 = X-100 = to.)