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a) μ = mean IQ of those who've had a UFO experience.

b) one-sided ($>$)

c) $n \geq 30$

no, $n=25 \Rightarrow$ pop. should be normal for this to be valid.
 Don't know, and don't have a graph of the sample.

d) $t = \frac{101.6 - 100}{\frac{8.9}{\sqrt{25}}} = .899$ e) $\Pr(t > .899) = .15 - .20$



interpret p-value

f) ~~*~~ p-value of .15 - .20 \Rightarrow The prob. of obtaining a sample mean of 101.6 or higher ~~*~~ if the true mean IQ is 100.

~~*~~ The p-value of .15 - .20 is not sign. at any reasonable level. (the .10 level)
 Fail to reject H_0 . There is

20-10

a) μ = mean c.c. balance of undergrad students

$H_0: \mu = 2000$
 $H_a: \mu > 2000$

$$t = \frac{2169 - 2000}{\frac{1000}{\sqrt{1074}}} = 5.54$$

cond.

- $n \geq 30$
 $1074 \geq 30$
- SRS from pop. of interest
 Problem states random sample of undergrad students

$df = 1073$
 (used $df = 1000$ on table)
 $p\text{-value} = \text{pr}(t > 5.54) \approx 0$

with a p-value of ≈ 0 ,
 this is sig at .05 level.
 Reject H_0 . There is
 conclusive evid. that
 undergrads carry an avg
 balance > 2000 .

⑥

c) $b \Rightarrow$ larger p-value