RECITATION
INFERENCES ABOUT P

First:
Collect homework due today.
Handout homework solutions.
Review one or more homework problems, as needed.

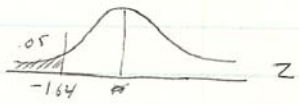
Then:
Explain difficult concepts from the lecture.

Today's recitation will be used mainly to review and explain the homework problems.

EXERCISE:
A researcher claims that at least 15% of the houses in NYC are substandard. A r.s. of 500 houses indicates that 60 are substandard. Should we reject the researcher's claim?
(a) Test at $\alpha = .05$.
(b) Test at $\alpha = .01$. Does anything change?
(c) Construct a 95% CIE of P

H_0: $P \geq .15$

H_1: $P < .15$



$P_s = \frac{60}{500} = .12$

$$Z = \frac{.12 - .15}{\sqrt{\frac{(.15)(.85)}{500}}} = \frac{-.03}{.016} = -1.875$$

Reject H_0

95% CI for p:

$$.12 \pm 1.96\sqrt{\frac{.12(.88)}{500}}$$

$$.12 \pm .028$$

$.092 \longleftrightarrow .148$