

I. Hypothesis Testing (p.439):

null *vs* alternate hypotheses...

$$H_0: \mu = \# \text{ (given value)}$$

$$H_1: \mu < \# \text{ or } \mu > \# \text{ or } \mu \neq \#$$

analyze info to determine whether to...

reject H_0 (*i.e.*, accept H_1), or

fail to reject H_0 (*i.e.*, accept H_0)

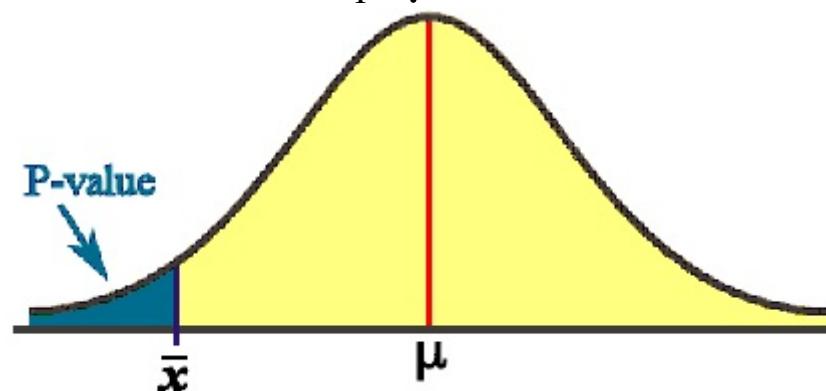
how?

using a... left-, right-, or two-tailed test,
to compare P-value (probability from z -table)
with a specified **level of significance (α)**

III. P-value & Level of Significance (α) –

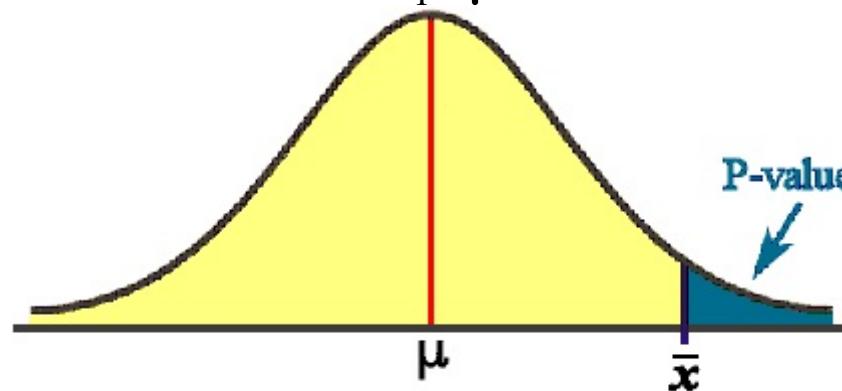
If $H_0: \mu = \#$, then use...

1. Left-tail test for $H_1: \mu < \#$



$$P\text{-value} \leq \alpha \Rightarrow \text{reject } H_0$$

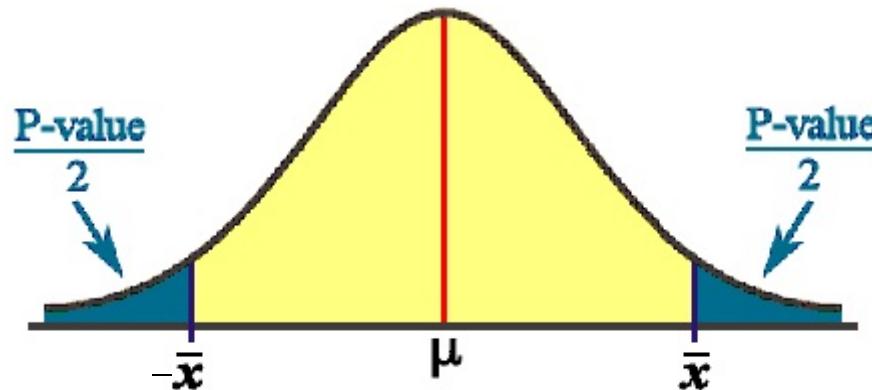
2. Right-tail test for $H_1: \mu > \#$



$$P\text{-value} \leq \alpha \Rightarrow \text{reject } H_0$$

III. *continued...*

3. Two-tail test for $H_1: \mu \neq \#$



$$\text{P-value} \leq \alpha \Rightarrow \text{reject } H_0$$

IV. Examples (pp.451-454): #12,14,18,**20**,24

HW: pp.450-454 / #1,3,5,7,11-23(odd)

Read pp.454-464 (section 8.2)