

### Interpretation #1

If  $p\text{-value} < \alpha \Rightarrow \text{REJECT } H_0$

If  $p\text{-value} > \alpha \Rightarrow \text{FAIL TO REJECT } H_0$

( $\alpha$  can = 0.01, 0.05, 0.1)

### CONCLUSION #1 (use the p-value for the 1-sided test!!!)

If  $p\text{-value} < 0.01$ , then we have **very strong evidence** "for  $H_A$ /against  $H_0$ " (be context specific)

If  $0.01 < p\text{-value} < 0.05$ , then we have **strong evidence** "for  $H_A$ /against  $H_0$ " (be context specific)

If  $0.05 < p\text{-value} < 0.1$ , then we have **some evidence** "for  $H_A$ /against  $H_0$ " (be context specific)

If  $0.1 < p\text{-value} < 0.2$ , then we have **not enough evidence** "for  $H_A$ /against  $H_0$ " (be context specific)

If  $p\text{-value} > 0.2$ , then we have **no evidence** "for  $H_A$ /against  $H_0$ " (be context specific)

CONCLUSION #2 (We are 95% confident that  $p$  is between...--be context specific)