



## Lesson 9.2 Day 2– Significance Tests: The 4 Steps

### Important ideas:

#### L.T. #1 4-Step Process

1) **STATE: Parameter (in context)**  
**Statistic**  
**Hypotheses**  
**Significance Level**

2) **Plan: Name the Procedure and Check Conditions**

3) **Do: Give General Formula**

**Give Specific Formula**

**Work, Picture, and P-Value**

4) **Conclude: We do/do not have convincing evidence against the null.**

#### L.T. #2 Two sided

This is when  $H_0: p = .25$

$H_a: p \neq .25$

**Multiply the p-value by 2.**

Name: \_\_\_\_\_ Hour: \_\_\_\_\_ Date: \_\_\_\_\_

## Check Your Understanding

According to the National Institute for Occupational Safety and Health, job stress poses a major threat to the health of workers. A news report claims that 75% of restaurant employees feel that work stress has a negative impact on their personal lives. Managers of a large restaurant chain wonder whether this claim is valid for their employees. A random sample of 100 employees finds that 68 answer “Yes” when asked, “Does work stress have a negative impact on your personal life?”

1. Do these data provide convincing evidence at the  $\alpha = 0.10$  significance level that the proportion of all employees in this chain who would say “Yes” differs from 0.75?

**STATE:** Parameter:

Statistic:

Hypotheses:

Significance level:

**PLAN:** Name of procedure:

Check conditions:

**DO:** General Formula:

Specific Formula:

Work:

Picture:

Test statistic:

P-value:

**CONCLUDE:**

2. A 90% confidence interval for the restaurant worker data was also created and found to be (0.603272, 0.756728). Explain how the confidence interval is consistent with, but gives more information than, the test.