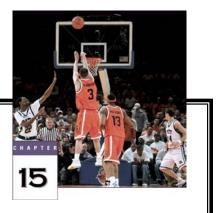
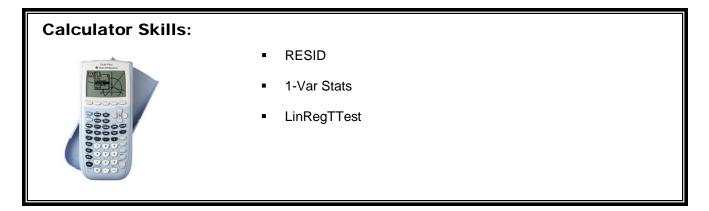
Chapter 15: Inference for Regression

Key Vocabulary:

- regression
- true regression line
- mean response
- true slope

- true intercept
- standard error
- t statistic





- 1. Give the equation for the *true regression line*, and state what each component of the equation represents.
- 2. Summarize the conditions for regression inference:

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- 3. Give the equation for the *standard error about the least-squares line*:

- 4. How many degrees of freedom are there in regression inference?
- 5. State the form of a confidence interval for the regression slope. Clearly state what each component of the equation represents.

- 6. What is the most common hypothesis about the slope, when testing for a linear relationship?
- 7. Give the equation for the *t*-statistic used to carry out a significance test for regression slope.
- 8. State and illustrate with diagrams, each of the possible alternative hypotheses for a significance test for regression slope