

# Probability & Statistics – Final Review

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## Chapter 1&2:

- Graph a set of data.
- Describe the shape, center, and spread.
- Find the mean and the standard deviation.
- Interpret the standard deviation.
- Calculate a numerical summary from a set of data and construct a box plot.
- Determine outliers using IQR criterion. ( $1.5IQR$ )

## Chapters 3&4:

- Graph a scatter plot from a set of data.
- Describe the direction, form and strength.
- Find the least squares regression line and predict outcomes.
- Find  $r$  and  $r^2$  and interpret what they mean.

## Chapter 5:

- Design an experiment from a given situation.
- Find an SRS.
- Simulate and experiment and interpret your results.
- Determine bias and lurking variables.

## Chapter 10:

- Perform a significance test from a set of data.
- Find and interpret confidence intervals.
- Discuss type I and II errors.

## Chapter 6:

- Probability Rules
- Apply addition principle with disjoint events.
- Apply multiplication principle with independent events.