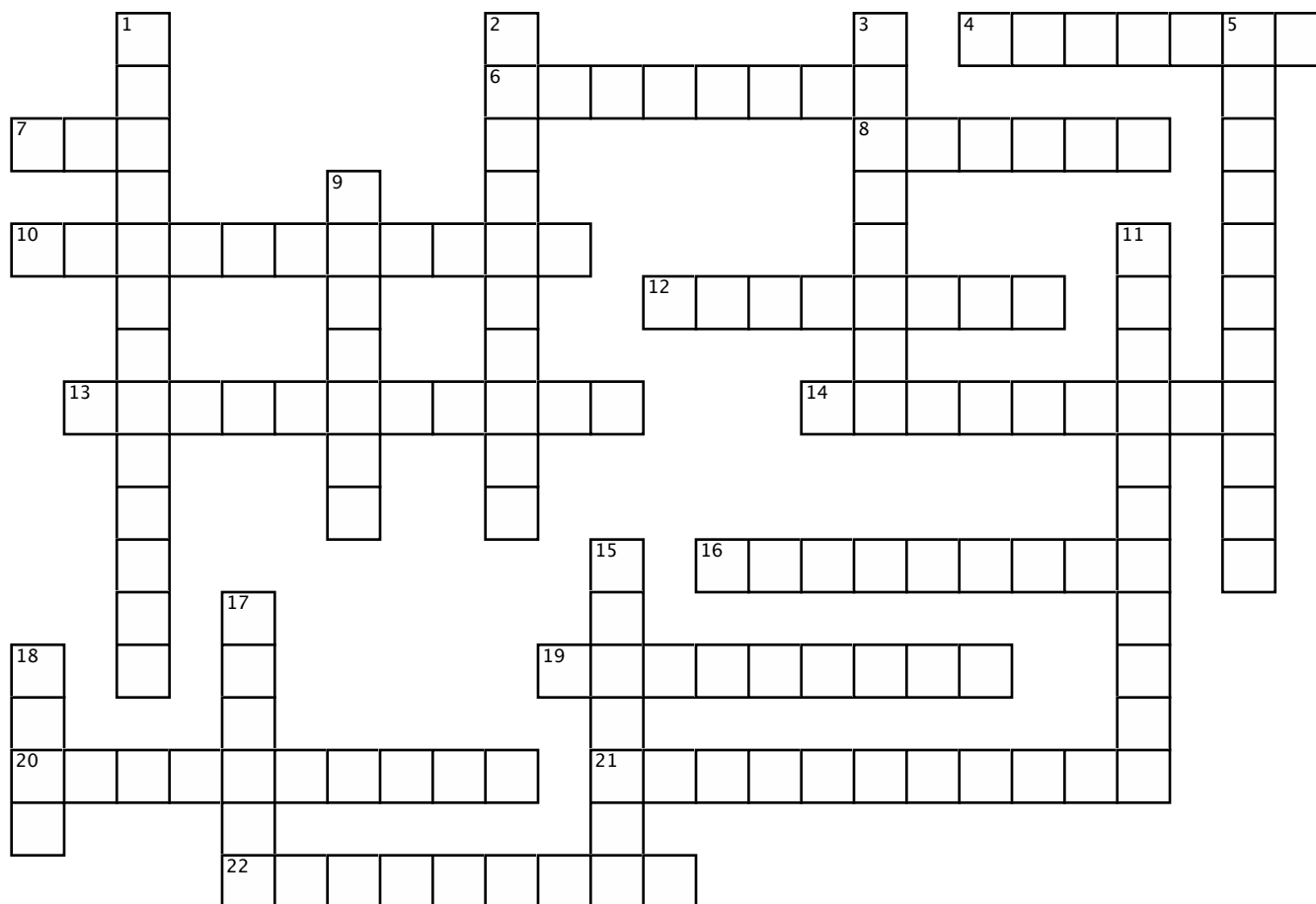


# YMS Ch3: Examining Relationships

## AP Statistics at LSHS

Mr. Molesky



### Across

- Individual observation that falls outside the overall pattern of the relationship.
- Variable that measures the outcome of a study
- predicted  $y = y_{-}$
- English mathematician who turned regression into a general method for examining relationships
- Measure of the strength and direction of a relationship
- Observed - Predicted
- An observation whose removal would markedly change the LSRL
- Another name for response variables
- Overall pattern in a scatterplot: Strength,  $_{-}$ , Form
- Correlation does not imply  $_{-}$
- Method for finding the line of best fit: Least-Squares  $_{-}$
- Plot that displays quantitative bivariate relationships
- Correlation is not  $_{-}$ : Outliers affect its value

### Down

- $r$ -squared = Coefficient of  $_{-}$
- $r$ -squared indicates the  $_{-}$  or percent of variability in  $y$  explained by LSRL on  $x$
- French mathematician invented least squares for use in astronomy
- Variable that attempts to explain observed outcomes
- If a linear model is appropriate, its residual plot should have no  $_{-}$
- Another name for explanatory or control variables
- Correlation's other name:  $_{-}$  Product Moment Coefficient of Correlation
- Correlation only measures the strength of  $_{-}$  relationships
- The mean of the residuals of least-squares is always