

## 2023-2024 AP Statistics Assignments

(see web site for reading guides, glossaries of important terms, notes, HW answers, and other goodies)

Chapter	Day	Topics	Objectives: Students will be able to...	Homework	Reading	4B
<b>Chapter 3 FRAPPY's due day of test</b>						
3	0 (post test)	Chapter 3 Introduction  3.1 Measuring linear association: correlation	<ul style="list-style-type: none"> <li>Describe why it is important to investigate relationships between variables.</li> <li>Identify explanatory and response variables in situations where one variable helps to explain or influences the other.</li> <li>Make a scatterplot to display the relationship between two quantitative variables.</li> <li>Describe the direction, form, and strength of the overall pattern of a scatterplot.</li> </ul>	1, 3, 9 10	Section 3.1	4-Oct
<b>Columbus Weekend - OFF OCT6 and OCT9</b>						
3	1	<b>3.1 Facts about correlation</b>  <i>Activity - 3.1 Facts sheet (read for IP)</i> <i>Activity - 3.1A Intro to Correlation</i> <i>Activity - 3.1B Regression Internet</i>	<ul style="list-style-type: none"> <li>Recognize outliers in a scatterplot.</li> <li>Know the basic properties of correlation.</li> <li>Calculate and interpret correlation in context.</li> <li>Explain how correlation <math>r</math> is influenced by extreme observations.</li> </ul>	<b>Complete Packet - Read all handouts</b>  15, 17, 21, 26-32	Section 3.2 pgs 164 - 171	10-Oct
	2	3.2 Interpreting a regression line (LSRL)  <i>Activity - 3.2a Intro to Linear Regression</i>	<ul style="list-style-type: none"> <li>Interpret slope and intercept of the LSRL in context</li> <li>Use the least-squares regression line to predict <math>y</math> for given <math>x</math>.</li> <li>Explain the dangers of extrapolation.</li> <li>Explain the concept of least squares.</li> <li>Use technology to find a least-squares regression line.</li> </ul>	<b>Complete 3.2a WS</b>  35,37,39, 41, <del>43</del> ,45	Finish Section 3.2	12-Oct
3	3	3.2 Residuals and the LSRL line  <i>Activity - 3.2b Distance and Ticket Prices</i> <b>IP (new) - start in class Fidget problem</b>	<ul style="list-style-type: none"> <li>Calculate and interpret residuals in context.</li> <li>Find the slope and intercept of the least-squares regression line from the means and standard deviations of <math>x</math> and <math>y</math> and their correlation.</li> <li>Construct and interpret residual plots to assess if a linear model is appropriate.</li> <li>Use the standard deviation of the residuals to assess how well the line fits the data.</li> <li>Use <math>r^2</math> to assess how well the line fits the data.</li> <li>Interpret the standard deviation of the residuals and <math>r^2</math> in context.</li> <li>Identify the equation of a least-squares regression line from computer output.</li> </ul>	<b>47, 49, 54, 56</b>	<b>IP "Fidget" problem:</b> <ul style="list-style-type: none"> <li>Complete all steps for problem on pg164 "Does Fidgeting Keep You Slim."</li> <li>Clearly answer all ?s on my handout.</li> <li>Answers in book &amp; online</li> </ul>	16-Oct
	4	<b>Activity #1 - 3.2c Association vs. Causation</b> <b>Activity #2 (new): Ch3 Guided LSRL Review "Concrete Structures"</b>	<ul style="list-style-type: none"> <li>Explain why association doesn't imply causation.</li> <li>Recognize how the slope, <math>y</math> intercept, standard deviation of the residuals, and <math>r^2</math> are influenced by extreme observations.</li> </ul>	<b>58, 59, 60, 61, 63, 65, 71-78</b>		
3		<b>Chapter 3 FRAPPY (updated and will do a few in class)</b> *Complete Frappy 2018in-class * FRAPPY's (TBD - Update to Current Rubrics - OLD:2002Bq1, 2002q4, 2007Bq4,1999q1) ADD 2018Q1		<b>work on OCT18 and OCT20</b>		CH3 Frappy's due day of test
3	5	<b>Chapter Review:</b> <i>Chapter 3 MC Practice Test (book)</i>		Ch 3 AP Practice Test		20-Oct
3	6	<b>Chapter 3 Test and Chapter 3 Frappy's Due</b>		1, 3, 5, 7, 9, 11	Section 4.1	24-Oct