

Unit 2:

Learning Targets and Success Criteria:

1. I can represent bivariate quantitative data using a scatter plot.
I know I can because:
 - I can decide which variables go on the x and y axes.
 - I can decide on an appropriate scale to use for both variables.
 - I can label both axes in context.
 - I can give the scatter plot an appropriate title.

2. I can describe the relationship between 2 quantitative variables by describing a scatter plot in context. FUDS+
I know I can because:
 - I can describe its form. (linear or non-linear)
 - I can describe any unusual features. (outliers, clusters, etc.)
 - I can describe its direction. (positive or negative)
 - I can describe its strength. (weak, moderate, strong, or no association)
 - I can write a sentence in context that describes the overall relationship. (In general,...)

3. I can calculate and interpret correlation (r) for a LINEAR relationship between 2 quantitative variables.
I know I can because:
 - I can use the formula or I can use the calculator to run a linear regression to find r .
 - I can analyze the quantity of r to decide if the LINEAR relationship is weak, moderate, strong, or no linear association.

4. I can create and analyze a linear model (LSRL, line of best fit, equation of a line, etc...) for the LINEAR relationship between 2 quantitative variables.
I know I can because:
 - Given the summary stats, I can use the formulas to find the slope (b) and y-intercept (a) and use the slope and y-intercept to write the linear model in context.
 - Given the raw data, I can use the calculator to calculate the slope and y-intercept and then write the linear model in context.
 - Given a statistical software printout, I can identify the slope and y-intercept and then write the linear model in context.
 - I can interpret the slope in context.
 - I can interpret the y-intercept in context.
 - I can interpret r (correlation) in context.
 - I can interpret r^2 (coefficient of determination) in context.
 - I can interpret residuals in context.
 - I can calculate a predicted value using the linear model I created.
 - I can understand that ASSOCIATION \neq CAUSATION!!!!!!!!!!

5. I can identify and analyze influential points.

I know I can because:
 - I can decide if the point is an outlier.
 - I can decide if the point has high leverage.
 - I can decide if the point will significantly change the slope, y-intercept, or correlation of the linear model.

Day 1

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #1 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Start Ch. 7 notes (through TI-Tips)

Summarizers:

Selected Problems from Handout

Homework:

none

Day 1b

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #1 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Finish Ch. 7 notes

Summarizers:

Selected Problems from Handout

Homework:

None

Day 2a

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #1 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Guided Practice p. 164 #'s 1,5,7,11,12,15,20,31,39

Summarizers:

Selected Problems from Handout

Homework:

Friday Night Lights Football WS

Day 2b

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #1 (see above)

Activator

Review HW Solutions

Direct Instruction, Guided Practice, Practice/Differentiation:

Student GPAs vs. work hours WS (Guided)

Summarizers:

Selected Problems from Handout

Homework:

P. 168 #'s 3,4,6,8,13,14,17,18,23-26

Day 2c

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #1 (see above)

Activator

Review homework solutions

Direct Instruction, Guided Practice, Practice/Differentiation:

Ch.7 Pet Store WS

Ch. 7 Quiz Review

Summarizers:

Selected Problems from Handout

Homework:

Study for Quiz!

Day 2d

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #1 (see above)

Activator

Questions before quiz?

Direct Instruction, Guided Practice, Practice/Differentiation:

Ch. 7 Quiz (Scatter plots, Association, and Correlation)

Summarizers:

Selected Problems from Handout

Homework:

None

Day 3

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, & 4 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Start Ch. 8 notes (through TI-Tips)

Summarizers:

Selected Problems from Handout

Homework:

None

Day 3b

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, 4 (see above)

Activator

AP Exam MC Practice Question

Direct Instruction, Guided Practice, Practice/Differentiation:

Finish Ch. 8 notes

Summarizers:

Selected Problems from Handout

Homework:

P. 198 #49

Day 4

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, & 4 (see above)

Activator

Review HW Solutions

Direct Instruction, Guided Practice, Practice/Differentiation:

Distance and Ticket Price WS (Guided)

Summarizers:

Selected Problems from Handout

Homework:

Candy Sales WS

Day 5

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, 4 (see above)

Activator

Graphs (matching correlations) handout

Direct Instruction, Guided Practice, Practice/Differentiation:

Review and work through candy sales WS

Start Male/Female Height/Weight WS

Summarizers:

Selected Problems from Handout

Homework:

Continue working on M/F Ht/Wt WS

Day 5b

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, 4 (see above)

Activator

Answer #'s about Male/Female Height/Weight assignment

Direct Instruction, Guided Practice, Practice/Differentiation:

LinReg Packet A FRQs (Guided)

Summarizers:

Selected Problems from Handout

Homework:

Continue working on M/F Ht/Wt WS

FRQs for packet B

Day 6

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, 4 (see above)

Activator

Answer #'s about Male/Female Height/Weight assignment

Direct Instruction, Guided Practice, Practice/Differentiation:

LinReg Packet A MCQs (Guided)

Summarizers:

Selected Problems from Handout

Homework:

Continue working on M/F Ht/Wt WS

MCQs for packet B

Day 6b

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, 4 (see above)

Activator

Answer ?'s about Male/Female Height/Weight assignment

Direct Instruction, Guided Practice, Practice/Differentiation:

What is R^2 Anyways? (Guided)

Summarizers:

Selected Problems from Handout

Homework:

Continue working on M/F Ht/Wt WS
FRQs for packet B

Day 7

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, 4 (see above)

Activator

Answer ?'s about Male/Female Height/Weight assignment

Direct Instruction, Guided Practice, Practice/Differentiation:

Ch. 8 Quiz Review (postal rates)

Summarizers:

Selected Problems from Handout

Homework:

P. 198 #45 and Study for Quiz!

Day 8

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 2, 3, 4 (see above)

Activator

Questions about Quiz?

Direct Instruction, Guided Practice, Practice/Differentiation:

Ch. 8 Linear Regression Quiz

Summarizers:

Selected Problems from Handout

Homework:

Continue working on M/F Ht/Wt WS

Day 9

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #5 (see above)

Activator

AP Exam MC practice question

Direct Instruction, Guided Practice, Practice/Differentiation:

Ch. 9 Notes (Guided)

Summarizers:

Selected Problems from Handout

Homework:

P. 214 #'s 1-11 odd

Day 9b

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #5 (see above)

Activator

Outliers, Leverage, and Influential Points Graphic Organizer

Direct Instruction, Guided Practice, Practice/Differentiation:

Wandering Point Activity (Guided)

Summarizers:

Selected Problems from Handout

Homework:

P. 214 #'s 2-12 even

Day 10

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #5 (see above)

Activator

Review HW Solutions

Direct Instruction, Guided Practice, Practice/Differentiation:

Graduating Classes WS (guided)

Summarizers:

Selected Problems from Handout

Homework:

P. 217 #20

Day 11

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 1-5 (see above)

Activator

Review HW Solutions

Direct Instruction, Guided Practice, Practice/Differentiation:

Unit 2 (2-Variable Data) Test Review (ch.'s 7-9)

Summarizers:

Selected Problems from Handout

Homework:

Complete reviews and Study for Test

Day 12 & 12a

Exploring 2-Variable Data

Standard: Exploring 2-Variable Data (5% - 7% of AP Exam)

Learning Target(s) & Success Criteria: #'s 1-5 (see above)

Activator

Test Review Solutions

Direct Instruction, Guided Practice, Practice/Differentiation:

Unit 2 (2-Variable Data) Test (ch.'s 7-9)

Part 1: 10 MCQs and 2 FRQs

Part 2: 2 FRQs

Summarizers:

Selected Problems from Handout

Homework:

Complete reviews and Study for Test