

Pathfinder Algebra 8th	Regal Coller	Week of 9-19-16
Day	In Class	Assignments
<p>Monday/ Tuesday 9/19-9/20</p> <p>Problem 1.1</p> <ul style="list-style-type: none"> <input type="checkbox"/> two geoboards of the same thickness (keep covers on them) <input type="checkbox"/> small paper cups <input type="checkbox"/> approximately 50 pennies per group <input type="checkbox"/> 11×4.25-inch strips of paper <input type="checkbox"/> graph paper (one per person) <input type="checkbox"/> spiral notebook <input type="checkbox"/> ruler (one per group) 	<p>Focus Question: How would you describe the relationship between bridge strength and bridge thickness?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Syllabus <p>Assessment FOR Learning:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Introduction to the text (TWMM) <input type="checkbox"/> Spiral notebook table of contents & page numbers <input type="checkbox"/> How to label your assignments in your spiral for classwork <p>TWMM Problem 1.1 (p. 8-9 A-E)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vocabulary (back of agenda) <input type="checkbox"/> Launch video: Bridges! <input type="checkbox"/> Explore: Problem 1.1--Work with your seat partner. <input type="checkbox"/> Summarize as a class <p>Reflection Questions:</p> <ol style="list-style-type: none"> How would you describe the relationship between bridge length and bridge strength as revealed by your experiment? How is this relationship shown in your graph? 	<ul style="list-style-type: none"> <input type="checkbox"/> Complete any work not completed in class. (Due W/Th) <input type="checkbox"/> How to label LINED PAPER for homework (not in your spiral notebook!). <input type="checkbox"/> Required ACE assignment (Due W/Th): p. 16 #2 p. 19 #7-8 p. 20-22 #10-15 <p>Requirements--All graphs should have:</p> <ul style="list-style-type: none"> • axis labels (with units) • origin • consistent intervals • descriptive title • correctly placed data points <p>Do NOT break your intervals on your axes.</p>
<p>Wednesday/ Thursday 9/21-9/22</p> <p>Problem 1.2</p> <ul style="list-style-type: none"> <input type="checkbox"/> two geoboards of the same thickness (keep covers on them) <input type="checkbox"/> small paper cup <input type="checkbox"/> approx. 50 pennies per group <input type="checkbox"/> 11×4.25-inch strips of paper--measure and cut to lengths indicated (4,6,8,9, & 11 inches) <input type="checkbox"/> graph paper (one per person) <input type="checkbox"/> spiral notebook <input type="checkbox"/> rulers (one per person) <input type="checkbox"/> scissors (one per person) 	<p>Focus Question: How would you describe the relationship between bridge strength and bridge length?</p> <p>Assessment FOR Learning:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check and make corrections to your homework <p>TWMM Problem 1.2 (p. 10-11 A-D)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Launch: More about bridges <input type="checkbox"/> Explore: Problem 1.2--Work with your seat partner. <input type="checkbox"/> Summarize as a class--accountable talk <input type="checkbox"/> Vocabulary (back of agenda) <input type="checkbox"/> Compare and contrast graphs from 1.1 and 1.2 <p>Reflection Questions:</p> <ol style="list-style-type: none"> How can you tell from your data table whether the graph of the data will be linear or not? What would it mean in this situation if the your data points were on or below the x-axis? Would that make sense? Why or why not? 	<ul style="list-style-type: none"> <input type="checkbox"/> Complete any work not completed in class. (Due Fri) <input type="checkbox"/> Required ACE assignment (Due Fri): p. 15 #1 p. 20 #9 p. 22-23 #16-26 <p>Extension--optional p. 25 #33</p>

Friday 9/23	Focus Question: How can you describe the relationship between two quantities by analyzing a graph? Assessment FOR Learning: <ul style="list-style-type: none"><input type="checkbox"/> Check and make corrections to your homework<input type="checkbox"/> TWMM 1 ACE problem #35	<ul style="list-style-type: none"><input type="checkbox"/> Complete any work not completed in class. (Due M/Tu)<input type="checkbox"/> Have a great weekend!
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To access digital resources:

- <http://MyMathUniverse/CMP3>
- Video resources do not require login.

Options for individuals to use for graphs:

- [Coordinate Grapher](#) (use first quadrant instead of full plane)
- [Data and Graphs](#) (label the column headers correctly)

Vocabulary Format (TIP = Term + Information/Definition + Example)

Monday/Tuesday

Problem 1.1--

- Independent variable
- Dependent variable
- Axis (Axes plural)
- Ordered pair
- Coordinate plane
- Quadrants (in the coordinate plane)
- Origin
- Scatterplot
- Discrete data
- Linear relationship
- Outlier

Problem 1.2--

- Non-linear relationship

For your exploration:

[Bridges: How Stuff Works](#)

Math Content Standards:

8.SP.A.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.

8.SP.A.2 Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.

8.F.B.5 Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Math Practice Standards:

2. Reason abstractly and quantitatively.
4. Model with mathematics.
6. Attend to precision.
7. Look for a make use of structure.