



Holyoke Public Schools

Grade 6

Data About Us

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Curriculum Maps Outline

Map Goals:

1. To ensure that students are exposed to a rigorous curriculum in every school and every grade.
2. To have consistent instruction and assessment district wide.
3. To prepare students for the MCAS test.
4. To explain what is expected to be covered in each CMP or Investigations Unit.

Expectations:

The district's expectation is for students to successfully meet the Massachusetts Mathematics Standards. In order to help facilitate this, teachers are required to follow the curriculum maps. The successful implementation of these maps requires teachers to thoroughly read each lesson in the TE and work through the project and problems in the map and the text prior to planning their lessons. Work should be kept in the binder with the curriculum map. Working through the math is an essential part of lesson planning, as it helps the teacher to better understand the concept being taught and the students' possible misunderstandings.

Feedback To Students:

Feedback needs to happen daily in the classroom. There are many ways to give feedback. Conferencing, observations, questions asked during your opening, work time and closing are all forms of feedback.

Map Components:

1. GENERAL PROBING QUESTIONS
2. UNIT SPECIFIC PROBING QUESTIONS
3. GOALS OF UNIT, CONTENT STANDARDS, & PERFORMANCE STANDARDS
4. PROJECT- to be done at end of unit and kept in the portfolio.
5. STUDENT MASTER – for project
6. INVESTIGATIONS
7. NOTEBOOK - includes: 3 Ring Binder, Bound Notebook, Portfolio
8. ACCOUNTABLE TALK – using probing questions
9. ON DEMAND ASSESSMENTS - to be done during teaching of unit.
10. STUDENT MASTERS- for on-demand assessments.

Mathematics Evidence of Learning Artifacts

Artifact	K - 1	2 – 5	6 - 8
3 Ring Binder (3R)*	<ul style="list-style-type: none"> ○ Student Work¹ 	<ul style="list-style-type: none"> ○ Vocabulary ○ Student sheets¹ <p style="text-align: center;"><u>All work should be dated and listed by investigation</u></p>	<ul style="list-style-type: none"> ○ Math books ○ Vocabulary ○ Core Problems¹ ○ Lab sheets <p style="text-align: center;"><u>All work should be dated and listed by investigation</u></p>
Marble Notebook (MNB)	<ul style="list-style-type: none"> ○ Journal entries² 	<ul style="list-style-type: none"> ○ Table of Contents ○ Problem of the day ○ Journal entries ○ Class work <p style="text-align: center;"><u>All work should be dated and listed by investigation in the Table of Contents</u></p>	<ul style="list-style-type: none"> ○ Table of Contents ○ Work time ○ Journal entries <p style="text-align: center;"><u>All work should be dated and listed by investigation in the Table of Contents</u></p>
Portfolio³ (P)	<ul style="list-style-type: none"> ○ On-demand tasks ○ Projects ○ Teacher anecdotal notes 	<ul style="list-style-type: none"> ○ On-demand tasks ○ Reflections ○ Projects <p style="text-align: center;"><u>All work should be dated and listed by investigation</u></p>	<ul style="list-style-type: none"> ○ On-demand tasks ○ Reflections ○ Projects <p style="text-align: center;"><u>All work should be dated and listed by investigation</u></p>

* Folders may be used in place of binders for these grade levels

¹ Send home at the end of each unit

² Use grade level math journals

³ All documents should be kept for the entire year

Accountable Talk

Probing Assessment Questions

As students progress through this unit, they should be asked the following questions to assess their specific knowledge of the unit.

- *Which representation is best for analyzing the distribution of data?*
- *How do we determine whether we want a measure of center or the range of the data?*
- *Which statistic do we want to use, and what will it tell us about the distribution of the data?*
- *How can we use graphs and statistics to describe a data distribution or to compare two data distributions in order to answer our original question?*
- *How would you organize data to best represent a pattern?*
- *How would you decide what data to collect to represent a question?*

Probing Questions – Teacher’s Role

The teacher’s role in probing for understanding is to ask questions that will:

- *Clarify student understanding*
- *Get at the objective of the lesson*
- *Go deeper into the mathematics*
- *Uncover misconceptions and misunderstandings*
- *Compare and contrast*

Probing Questions – Student’s Role

The students’ role is to be an active participant by:

- *Explaining their strategies*
- *Asking clarifying questions to teacher and other students*
- *Being active listeners*
- *Using the language of mathematics*

Probing Questions - Suggestions

When probing for understanding the teacher and students can use one or more of these suggested questions:

- *Why are you using < >?*
- *What are the ways you could < >?*
- *What else do you know?*
- *How do you know that?*
- *Can you show that?*
- *What convention did you use here?*
- *What can you do if you do not know?*
- *What standard does this work apply to?*
- *Is this always true?*
- *How does this connect to other mathematics we have learned?*
- *What is the same and what are the differences between < >?*
- *Can you back that up?*
- *Where is the math in your sketch?*
- *What does the answer mean?*
- *Does the answer make sense?*
- *Could you have used another operation to solve this task?*
- *Can you give examples?*

- *Can you say it another way?*
- *What's the math?*
- *Tell me about the task in your own words?*
- *What are you trying to find?*
- *How did you make your estimate?*
- *Will your answer be an over-estimate or an under-estimate? Why?*
- *I noticed that you used <...> to help you understand the task. Can you show us what you did and tell us how it helped you?*
- *Where do you see < > in your <model, diagram, number line, chart, etc.>?*
- *How can we see < > in your <model, diagram, number line, chart, etc.>?*
- *You have used a representation that is different from others that I've seen. Can you show us your <model, diagram, number line, chart, etc.>, and tell us how it helped you?*
- *How did you decide to solve the task? Why did you choose that method?*
- *Did you try any method that didn't work?*
- *Tell us what you tried.*
- *Why didn't it work?*
- *Would it ever work?*

Goals, Content Standards, & Performance Standards

Unit Goals:

- *Understand and use the process of data investigation: posing questions, collecting and analyzing data, distributions, and making interpretations to answer questions.*
- *Represent distributions of data using line plots, bar graphs, stem-and-leaf plots, and coordinate graphs.*
- *Compute the mean, median, mode and range of the data.*
- *Distinguish between categorical data and numerical data and identify which graphs and statistics may be used to represent each kind of data.*
- *Make informed decisions about which graph(s) and which of the measures of center (mean, median, or mode) and range may be used to describe a distribution of data.*
- *Develop strategies for comparing distributions of data.*

Math Content Standards:

- *(6.D.1) Describe and compare data sets using the concepts of median, mean, mode, maximum, minimum, and range.*
- *(6.D.2) Construct and interpret stem-and-leaf plots, line plots and circle graphs.*
- *(6.D.3) Use tree diagrams and other models to represent possible or actual outcomes of trials.*
- *(6.D.4) Predict the probability of outcomes of simple experiments and test the predictions.*

Performance Standards:

- *(M4 a) Collects data, organizes data, displays data with tables, charts and graphs that are appropriate.*
- *(M4 b) Analyzes data with respect to characteristics to frequency and distribution, including mode and range.*
- *(M4 c) Analyzes appropriately central tendencies of data by considering mean and median.*
- *(M4 d) Makes conclusions and recommendations based on data analysis.*
- *(M4 e) Critiques the conclusions and recommendations of others' statistics.*
- *(M4 f) Considers the effects of missing or incorrect information.*
- *(M\$ g) Formulates hypotheses to answer a question and uses data to test hypotheses.*

Investigation 1: Looking At Data

<p><u>Objectives</u> Investigations 1.1 – 1.5</p>	<p><u>Pacing:</u> 7 days</p>
<p style="text-align: center;"><i>Evidence of Learning Artifacts</i></p> <p>Journal and Reflection questions should be posted and referred to at the beginning of the appropriate <i>Investigation</i>.</p> <p>Journal and Reflection entries need to be done in class as part of the closure and assessment</p>	<p><u>Vocabulary</u>^{2:} Appendix 2, Investigation 1</p>
	<p><u>Core Problems</u>^{2:} Data About Us, Investigation 1 ACE Problems: : # 1, 22-25, 2-12, 26-28, 13, 29, 30, 14-20, 31, 32, 40-43, 21, 33-39</p>
	<p><u>Work Time</u>^{1:} Data About Us, Problems 1.1 – 1.5</p>
	<p><u>Journal Entries</u>^{1:} Appendix 3, Inv #1.1,1.2,1.3, 1.4, 1.5</p>
	<p><u>On Demand Tasks</u>^{3:} Appendix 5, Investigation 1</p>
	<p><u>Mathematical Reflection</u>³ Appendix 4, MMR1:</p>
<p style="text-align: center;"><i>Accountable Talk</i></p> <p>To promote learning, explore solutions, and justify reasoning, conversations between students and students or students and teacher must be accountable – accountable to the learning community, to the mathematics discipline, and to rigorous thinking.</p>	<p>As a result of this Investigation, students should be able to talk and manipulate the vocabulary of the Investigation in response to this type of question:</p> <ul style="list-style-type: none"> ○ How did you know that? ○ How can you use ...? ○ Can you show another way? ○ What convention did you use? <p>These are some recommended questions that you might use. Others can be found at the beginning of the map and on the probing question sheet in the district mathematics guide.</p>

1. Marble Note Book
2.3 Ring Binder
3. Portfolio

Investigation 2: Using Graphs to Explore Data

<p><u>Objectives</u> Investigations 2.1 – 2.4</p>	<p><u>Pacing:</u> 5 days</p>
<p style="text-align: center;"><i>Evidence of Learning Artifacts</i></p> <p>Journal and Reflection questions should be posted and referred to at the beginning of the appropriate <i>Investigation</i>.</p> <p>Journal and Reflection entries need to be done in class as part of the closure and assessment</p>	<p><u>Vocabulary</u>²: Appendix 2, Investigation 2</p> <hr/> <p><u>Core Problems</u>²: Data About Us , Investigation 2 ACE Problems # 1-4, 5-7, 10, 13, 14, 8, 11, 9, 12, 15</p> <hr/> <p><u>Work Time</u>¹: Data About Us, Problems, 2.1 – 2.4</p> <hr/> <p><u>Journal Entries</u>¹: Appendix 3, Inv 2.1, 2.2, 2.3, 2.4</p> <hr/> <p><u>On Demand Tasks</u>³: Appendix 5, Investigation 2</p> <hr/> <p><u>Mathematical Reflection</u>³ Appendix 4, MMR2:</p>
<p style="text-align: center;"><i>Accountable Talk</i></p> <p>To promote learning, explore solutions, and justify reasoning, conversations between students and students or students and teacher must be accountable – accountable to the learning community, to the mathematics discipline, and to rigorous thinking.</p>	<p>As a result of this Investigation, students should be able to talk and manipulate the vocabulary of the Investigation in response to this type of question:</p> <ul style="list-style-type: none"> ○ How did you know...? ○ How can you justify...? ○ Does your answer make sense? ○ Can you draw me a diagram? <p>These are some recommended questions that you might use. Others can be found at the beginning of the map and on the probing question sheet in the district mathematics guide.</p>

1. *Marble Note Book*
2.3 *Ring Binder*
3. *Portfolio*

Investigation 3: What Do We Mean by Mean?

<p><u>Objectives</u> Investigations 3.1 – 3.3</p>	<p><u>Pacing:</u> 5 days</p>
<p style="text-align: center;"><i>Evidence of Learning Artifacts</i></p> <p>Journal and Reflection questions should be posted and referred to at the beginning of the appropriate <i>Investigation</i>.</p> <p>Journal and Reflection entries need to be done in class as part of the closure and assessment</p>	<p><u>Vocabulary</u>²: Appendix 2, Investigation 3</p> <hr/> <p><u>Core Problems</u>²: Data About Us, Investigation 3 ACE Problems: # 1-4, 7, 8, 19, 5, 6, 10, 20, 21, 9, 11-18, 22, 23</p> <hr/> <p><u>Work Time</u>¹: Data About Us, Problems 3.1 – 3.3</p> <hr/> <p><u>Journal Entries</u>¹: Appendix 3, Inv 3.1 – 3.3</p> <hr/> <p><u>On Demand Tasks</u>³: Appendix 5, Investigation 3</p> <hr/> <p><u>Mathematical Reflection</u>³: Appendix 4, MMR3:</p>
<p style="text-align: center;"><i>Accountable Talk</i></p> <p>To promote learning, explore solutions, and justify reasoning, conversations between students and students or students and teacher must be accountable – accountable to the learning community, to the mathematics discipline, and to rigorous thinking.</p>	<p>As a result of this Investigation, students should be able to talk and manipulate the vocabulary of the Investigation in response to this type of question:</p> <ul style="list-style-type: none"> ○ What is your strategy? ○ How could you check that is correct? ○ Could you begin with a different step? ○ Does make sense given the information in the problem? <p>These are some recommended questions that you might use. Others can be found at the beginning of the map and on the probing question sheet in the district mathematics guide.</p>

1. *Marble Note Book*
2.3 *Ring Binder*
3. *Portfolio*

Appendix 1 Unit Project

<p style="text-align: center;"><i>Project</i>¹</p> <p>Student work should be placed in portfolio</p>	<p>The project is the culminating assessment, which will allow students to apply what they learned about the use of statistics.. It is written in MCAS form to give students the experience of answering an open-response question.</p> <p>The unit project is called ‘The Math Quiz’ and the student handout for the project can be found in Appendix 1</p>
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1. portfolio

Unit Project Scoring Guide

Score	Description
<u>4</u>	The student response demonstrates an exemplary understanding of the Data Analysis, Statistics, and Probability concepts involved in describing and comparing data sets using the concepts of median, mean, and mode.
<u>3</u>	The student response demonstrates a good understanding of the Data Analysis, Statistics, and Probability concepts involved in describing and comparing data sets using the concepts of median, mean, and mode. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result the response merits 3 points.
<u>2</u>	The student response contains fair evidence of an understanding of the Data Analysis, Statistics, and Probability concepts involved in describing and comparing data sets using the concepts of median, mean, and mode. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 2 points.
<u>1</u>	The student response contains only minimal evidence of an understanding of the Data Analysis, Statistics, and Probability concepts involved in describing and comparing data sets using the concepts of median, mean, and mode.
<u>0</u>	The student response contains insufficient evidence of an understanding of the Data Analysis, Statistics, and Probability concepts involved in describing and comparing data sets using the concepts of median, mean, and mode to merit any points

NAME: _____

DATE: _____

UNIT PROJECT: The Math Quiz

- *BE SURE TO ANSWER AND LABEL ALL PARTS OF EACH QUESTION.*
- *Show all work (diagrams, tables, and computations) on your answer sheet.*
- *If you do the work in your head, explain in writing how you did the work.*

Ms. York gave a math quiz to each of her two classes. The quiz scores of each class are shown below.

	Morning Class Quiz Scores	Afternoon Class Quiz Scores
Quiz Scores	91, 80, 75, 80, 60, 87, 80, 88, 90, 87, 92, 98	80, 87, 90, 70, 93, 80, 85, 90, 95, 80
Mean	84	?
Median	87	?
Mode	80	?

- a. In your Student Answer Booklet, draw a stem-and-leaf plot that displays the afternoon class quiz scores. Make sure to include a key.
- b. Determine the mean, median, and mode of the quiz scores for the afternoon class. Show or explain your work.
- c. Which class do you think did better on the quiz? Show or explain your work.
- d. If Ms. York wants to compute the overall mean of the scores from both classes, can she do this by taking the average of both means? Explain why or why not.

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Student Work: Question #31 - Score Point 4

Part A. - Afternoon Class Quiz Scores

7		0
8		0 0057
9		00 35

Part d. No when you divide the sum, your divisor is how many numbers you added. It might be slightly off. You can take the sum from each and add those together. Then divide. Make sure you count all of the numbers correctly for your divisor. I think it would be a better choice if you would like an accurate answer.

Part b. to find the mean, you must add all of the numbers up and divide the sum by however many numbers you added. Your mean is 85. The median is the number that appears in the middle. You must first put the numbers in order from least to greatest. Now, since there are two numbers in the middle, you add them together. Then divide by 2. Your median is 86. To find the mode, you must find the number that appears most often. The mode is 80.

Part c. I think the afternoon class did better. Their mean was 85. The morning class's mean was 84. A mean is another word for average. The afternoon class did better.

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Student Work: Question #31 - Score Point 3

a. Afternoon Quiz Scores

Stem	Leaf
9	0035
8	00057
7	0

b.

Mean = 85
 Median = 80
 Mode = 80

~~90, 90, 93, 95, 80, 80, 80, 85, 87, 70~~

$10 \overline{)850}$	$\begin{array}{r} 368 \\ 412 \\ +70 \\ \hline 850 \end{array}$	$\begin{array}{r} 80 \\ 80 \\ 80 \\ 85 \\ 87 \\ \hline 412 \end{array}$	$\begin{array}{r} 90 \\ 90 \\ 93 \\ +95 \\ \hline 368 \end{array}$	$\begin{array}{r} 70 \\ +0 \\ \hline 70 \end{array}$
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- c. Afternoon class because their average was higher than the morning class. Median and mode don't have anything to do with it.
- d. No, because to find the average you have to add and divide. The numbers would turn out to be different for the sum of all the numbers. That is why you can't use 84 and 85 to find the mean.

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Student Work: Question #31 - Score Point 2

a.

$$\begin{array}{r|l} 7 & 0 \\ 8 & 00057 \\ 9 & 005 \end{array}$$

B. mode - 80

median - $\overset{\times}{70}$ $\overset{\times}{80}$ $\overset{\times}{(85)}$ $\overset{\times}{87}$ $\overset{\times}{90}$ $\overset{\times}{93}$ $\overset{\times}{95}$
the median is 85

mean - 85 because you add them all up and divide by the number of numbers

C. Afternoon because the mean just higher in the afternoon.

D. Ms. York can add both averages together and then divide by two.

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Student Work: Question #31 - Score Point 1

a)

Afternoon	
1	70
3	80
1	85
1	87
2	90
1	93
1	95

b.) 80 = mode
80 = median
85 = mean

c.) I think the afternoon class did better because they had higher scores than the morning class did.

d.) yes. because their are almost the same number of means
84 morning 85 afternoon.

Appendix 2 Vocabulary

Investigation 1:

- *line plot, bar graph, mode, range, median, spread, categorical data, numerical data, vertical bar graph, horizontal bar graph, typical, data distribution, measure of center, magnitude of data samples*

Investigation 2:

- *stem-and-leaf plot, outlier, coordinate graph, y-axis, x-axis*

Investigation 3:

- *mean*

Appendix 3 Journal Entries

Investigation 1:

Investigation 1.1:

How could you find the total number of letters in all Miss Jee's students' names using the bar graphs?

Investigation 1.2:

Describe how you could use a table or line plot to display range, mode, median and describe what is typical about the data distribution.

Investigation 1.3:

How do we find the median in a set of data?

Investigation 1.4:

Describe how median, mode, and range relate to numerical and categorical data?

Investigation 1.5:

Describe and give examples of numerical and categorical data.

Investigation 2:

Investigation 2.1

Would a line plot be a good way to show the travel-time data? Why or why not?

Investigation 2.2

How do you identify an outlier in a distribution and what does it tell you about the data?

Investigation 2.3

Explain how to determine which measure should go on the horizontal axis and on the vertical axis.

Investigation 2.4

On a graph showing distance, describe how you can tell, from the graph, the shortest distance it took someone to travel to school.

Investigation 3

Investigation 3.1

What does it mean to find the mean?

Investigation 3.2

Describe your strategy for finding the mean?

Investigation 3.3

In general, what effect do outliers have on the mean of a data set?

Appendix 4 Reflections

MMR1

How are a table of data, a line plot, and a bar graph alike? How are they different?

MMR2

What do you consider when choosing a scale for each axis of a coordinate graph?

MMR3

You have used three measures of center: mode, median, and mean.

- a. Why do you suppose they are called “measures of center”?
- b. What does each tell you about a set of data?
- c. Why might you use the median instead of the mean?

Appendix 5 On Demand Tasks

CMP2: Data About Us

<p><i>On-Demand Tasks</i></p> <p><u><i>Additional Practice & Skills Workbook</i></u></p> <p><u><i>Assessment Resources</i></u></p> <p>In class individualized On-Demand tasks assess knowledge of mathematical facts, operations, concepts, and skills, and their efficient application to problem solving. The results of these different forms of assessment provide rich profiles of students' achievements in mathematics and serve as the basis for identifying curricula and instructional approaches to best develop their talents.</p>	<p><u>After Inv. 1</u> <i>Additional Practice and Skills Workbook # 1, 2 p.12 s</i></p> <p><u>After Inv. 2</u> <i>Additional Practice and Skills Workbook #2 p.117</i></p> <p><u>After Inv. 3</u> <i>Additional Practice and Skills Workbook #6-8 p.123</i> <i>Additional Practice and Skills Workbook #6-9 p.124</i></p>
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HPS Mathematics Scoring Rubric

Score	Description
<u>4</u>	The response shows a <u>comprehensive</u> understanding of the mathematical concept(s) and/or procedures embodied in the task(s). It indicates that the student has <u>completed the task(s)</u> correctly, using mathematically sound procedures. It contains <u>clear, complete explanations</u> and/or <u>adequate work required</u> .
<u>3</u>	The response shows a <u>general</u> understanding of the mathematical concept(s) and/or procedures embodied in the task(s). It indicates that the student has <u>completed the task(s)</u> , using mathematically sound procedures. It contains <u>complete explanations</u> and/or <u>adequate work required</u> .
<u>2</u>	The response shows a <u>basic</u> understanding of the mathematical concept(s) and/or procedures embodied in the task(s). It addresses <u>most aspects of the task(s)</u> , using mathematically sound procedures. It may contain a correct solution but provides <u>incomplete procedures, reasoning and/or explanations</u> . It may reflect <u>some misunderstandings</u> of the underlying mathematical concepts and/or procedures.
<u>1</u>	The response shows a <u>minimal</u> understanding of the mathematical concepts and/or procedures embodied in the task(s). It addresses <u>some elements of the task(s)</u> correctly but reaches an <u>inadequate solution and/or provides reasoning that is faulty or incomplete</u> . It exhibits <u>multiple flaws related to a misunderstanding of important aspects</u> of the task(s), misuse of mathematical procedures, or faulty mathematical reasoning. It reflects a <u>lack of essential understanding</u> of the underlying mathematical concepts. It may contain a correct numerical answer but <u>the required work is not provided</u> .
<u>0</u>	The response is <u>completely incorrect, irrelevant, or incoherent</u> , or contains a correct response arrived at using an <u>obviously incorrect procedure</u> .

NAME: _____

DATE: _____

Investigation 1

- BE SURE TO ANSWER AND LABEL ALL PARTS OF EACH QUESTION.
- Show all work (diagrams, tables, and computations) on your answer sheet.
- If you do the work in your head, explain in writing how you did the work.

1. Ms. Snow's students wrote down a whole number between 1 and 10 on a slip of paper. She collected the numbers and displayed the data in the line plot below.



- a. What is the typical number chosen by students in this class?
 - b. If two students were absent on the day Ms. Snow collected the data, how many students are enrolled in the class? Explain your reasoning.
2. Mr. Watkins arranged the quiz scores of his afternoon math class from least to greatest: 5, 5, 6, 6, 6, 7, 7, 7, 7, 7, 8, 8, 8, 8, 8, 8, 9, 9, 9, 10, 10
- a. How many students are in Mr. Watkins's afternoon math class?
 - b. How do the quiz scores vary?
 - c. What is the mode of the scores?
 - d. What is the median of the scores?

NAME: _____

DATE: _____

Investigation 2

- *BE SURE TO ANSWER AND LABEL ALL PARTS OF EACH QUESTION.*
- *Show all work (diagrams, tables, and computations) on your answer sheet.*
- *If you do the work in your head, explain in writing how you did the work.*

2. Earl rolls 6 six-sided number cubes and finds the sum of the numbers rolled.
a. What are the least and greatest sums Earl can roll? Explain.

b. What do your answers for part (a) tell you about the sums Earl can roll?

c. Earl rolled the number cubes several times and recorded each sum. Here are Earl's results:

27, 21, 17, 18, 21, 18, 25, 32, 8, 19, 21, 20, 26, 21, 11, 23, 33, 19, 9, 12, 17

Make a stem-and-leaf plot to display Earl's data.

NAME: _____

DATE: _____

Investigation 3

- *BE SURE TO ANSWER AND LABEL ALL PARTS OF EACH QUESTION.*
- *Show all work (diagrams, tables, and computations) on your answer sheet.*
- *If you do the work in your head, explain in writing how you did the work.*

6. The Cycle Shoppe sells 10 brands of bicycles with these prices:

\$90, \$130, \$180, \$280, \$320, \$390, \$670, \$840, \$1050, \$1400

- a. What is the mean price?

- b. What is the median price?

- c. Which price seems most typical? Explain your reasoning.

For Exercises 7 and 8, use this information.

Mr. Johnson's class of 20 students collects 180 cans of food for the food drive.

Ms. Smith's class of 25 students collects 200 cans of food.

7. Which class has a greater mean number of cans of food?

- | | |
|--------------------------------|---|
| A. Mr. Johnson's class | B. Ms. Smith's class |
| C. The means are equal. | D. There isn't enough information to tell. |

8. Which class has a greater median number of cans of food?

- | | |
|--------------------------------|---|
| F. Mr. Johnson's class | G. Ms. Smith's class |
| H. The means are equal. | J. There isn't enough information to tell. |

NOTES