Mathography

In no less than half a page, write a mathography.

What is a mathography you ask?

It is a written account of your math life.

Questions that could be answered in your mathography include:

- Do you like math?
- Do you feel like you are good at math? Why or why not?
- Do you have an interest in Math Carnival? Why?
- Goals for you grades and work in math class this year.
- What could I help you with in math?
- Anything else you would like me to know about you.

Name: _____

Cup Stacking: Mean, Median, Mode, Range

Prediction:
Hypothesis:

Practice Rounds

Cups Stacked in 30 seconds	
Cups stacked in 1 minute	
Cups stacked in 2 minutes	

	30 seconds	1 minute
Class Data		
Numbers in Order		
Mean		
Median		
Mode		
Range		

	30 seconds	1 minute
6th Grade Data		
Numbers in Order		
Mean		
Median		
Mode		
Range		

Group Project Directions: Create a Poster of the following.

1. Mean, median, mode, and range of class data
2. Mean, median, mode, and range of 6th grade data
3. A box plot for each set of data
4. A histogram for each set of data
5. Mean absolute deviation for each set of data

Mean, median, mode and range of class (labeled)	5 points	
Mean, median, mode, range of 6th grade (labeled)	5 points	
4 box plots (labeled)	24 points	
4 histograms (labeled)	16 points	
4 mean absolute deviations	8 points	
Neat, organized, applealing	12 points	

Total: _____ / 70

Team Members: _____

Data Displays Team Stats Project

Planning Guide

As a team, create a comparative data display for two different sports teams (in the same sport) using a box plot and histogram.

Sports Team 1: _____

Sports Team 2: _____

10-game high points for Team 1:

_____

10-game high points for Team 2:

_____

Box Plot Info

Team 1	
Min	
Q1	
Median	
Q3	
Max	

Team 2	
Min	
Q1	
Median	
Q3	
Max	

My number line will start on _____ and end on _____.

Histogram Info

Intervals

Team 1

Points	Frequency

Frequency Table

Team 2

Points	Frequency

Frequency Table

On

Posterboard:

- Create a Box Plot & Histogram for each team's ten highest scoring games.
- Write two comparative statements using the information from the data displays.
- Find the Mean Absolute Deviation for both teams. Write a statement about what information M.A.D. gives about the data.
- Write a statement about which data display you believe compares the data best. Explain your reasoning.

Scoring Guide:

Two Box Plots • title • correct Min, Q1, Median, Q3, and Max • easy to read number line (labeled) • axis labeled	16 points	
Two Histograms • title • intervals (same size & do not overlap) • BOTH axis labeled • correctly drawn columns	16 points	
Two comparative statements	8 points	
MAD • correct MAD • how useful	6 points	
Neat & organized	4 points	

Total Points _____/50 x 2 = _____%

Name: _____

Data Displays

Create an informative project board on Data Displays.

It must include the following information:

Definition of cluster, gap, and outlier	3 points	
Definition of mean, median, mode, range, and interquartile range	5 points	
Example of Dot Plot: title and axis labeled	3 points	
Example of Box Plot: title, minimum, Q1, median, Q3, maximum labeled	7 points	
Example of Histogram: title, axis labeled, frequency table with correct intervals	5 points	
Definition and example of Mean Absolute Deviation	3 points	
Neat and Visually Appealing	4 points	

Total Points: _____/30 x 2 = _____/60

All About Properties
Project

Now that you are experts on the properties, you will be creating a poster to explain and show examples of the properties: commutative, associative, and distributive property.

For each property you must:

- EXPLAIN what the property means in your OWN WORDS.
- SHOW AN EXAMPLE of the property being applied.
- SHOW A SECOND EXAMPLE of the property being applied.
- MAKE YOUR POSTER LOOK NICE AND NEAT

CHECKLIST FOR PROPERTY PROJECT

Requirement	Student Self-Check	Teacher Check
Commutative Property -explanation (not a google definition) -example 1 (problem worked out) -example 2 (problem worked out)		___/21
Associative Property -explanation (not a google definition) -example 1 (problem worked out) -example 2 (problem worked out)		___/21
Distributive Property -explanation (not a google definition) -example 1 (problem worked out) -example 2 (problem worked out)		___/21
Neat & Appealing -work is readable -I can find things easily -made effort to do a good job		___/17

TOTAL SCORE: _____ / 80

Design Your Own Treehouse

To help you understand **AREA**, you are going to design your own treehouse. You will have to follow some specific guidelines for this activity. You can use regular paper for your rough draft, but the final draft must be on graphing paper.

<u>Treehouse task requirements</u>

1. You will be allowed to use grid paper for this activity. Each square on the grid will equal 1 meter in real life.
2. Your tree house will have 5 rooms with the following dimensions:

- 4 × 5
- 2 × 2
- 6 × 9
- 8 × 8
- 3 × 5

3. You will need to give each room a name and label the room on your design.
4. Indicate on your design where doors and windows are located.
5. Give your tree house a title and put it on the graph paper.
6. On the folder, answer: Describe in your own words what area means and how you would figure out the area of a particular space.
7. In a boxed area on the folder, answer the following treehouse questions:

What is the area of each room?

- 4 × 5 room name?
- 4 × 5 room area (in squared meters)
- 2 × 2 room name?
- 2 × 2 room area (in squared meters)?
- 6 × 9 room name?
- 6 × 9 room area (in squared meters)?
- 8 × 8 room name?
- 8 × 8 room area (in squared meters)?
- 3 × 5 room name?
- 3 × 5 room area (in squared meters)?

- **What is the total area of the tree house (only include the five required rooms)?**

Geometry Town Project

This project will use your knowledge of shapes, area, perimeter, and volume to create a "town" out of 2-D and 3-D shapes. There will be a few requirements, but overall this is your project and should be a reflection of your creativity.

You will need a poster board OR a file folder (that you can obtain from your teacher) to create this project. A poster board is easier to create a project on, but NOT REQUIRED!

Requirements of this project:

Requirements	Points Earned	Points Possible
5 2-D shapes with their shape name, area, and perimeter listed on a separate sheet of paper. Each shape should have a building name (ex. school/hat store/Wal-Mart)		20 points
5 3-D shapes with their shape name, surface area, and volume listed on a separate sheet of paper. Each shape should have a building name (ex. school/hat store/Wal-Mart)		20 points
Two roads that create parallel lines Two roads that create intersecting lines		10 points
3 signs along the roads in the shape of a rectangle (Ex. Hospital sign, School crossing sign, etc.)		10 points
A park with 5 shapes clearly marked inside. (Ex. Part of the slide could be made out of a rectangle)		10 points
A correct compass rose in the bottom right hand corner		5 points
A name for your town that is big enough to see on the project		5 points
Neatly drawn and colored		20 points
Sheet attached on the back of project with all information regarding shape name, area, perimeter, surface area, and volume		20 points

_____ points/120 points

Name: _____

Vocabulary Project

As a pair, you are to create a project that shows your knowledge of:

GCF
LCM
FRACTIONS-what a fraction is along with adding, subtracting, multiplying, and dividing fractions
INTEGERS
ABSOLUTE VALUE
GRAPHING-how to graph, parts of a graph, and reflecting across the axis
INEQUALITIES

You may use pictures (that you draw), definitions, examples, or describing sentences to explain your thinking. You must label each component of the project and give a CLEAR explanation in some way so that I can see that you understand the information we have gone over.

This will be done on a piece of large paper after you have created a plan. I will be picking your partner.

Rubric

1. You have completed a labeled project that explains each of the above components
   _____ / 35

___ GCF
___ LCM
___ Fractions
___ Integers
___ Absolute Value
___ Graphing
___ Inequalities

2. There is a title for the entire project and your names are on the back of the project
   _____ / 10
3. The project is neat, appropriately colored (if needed) and I can find information
   _____ / 35

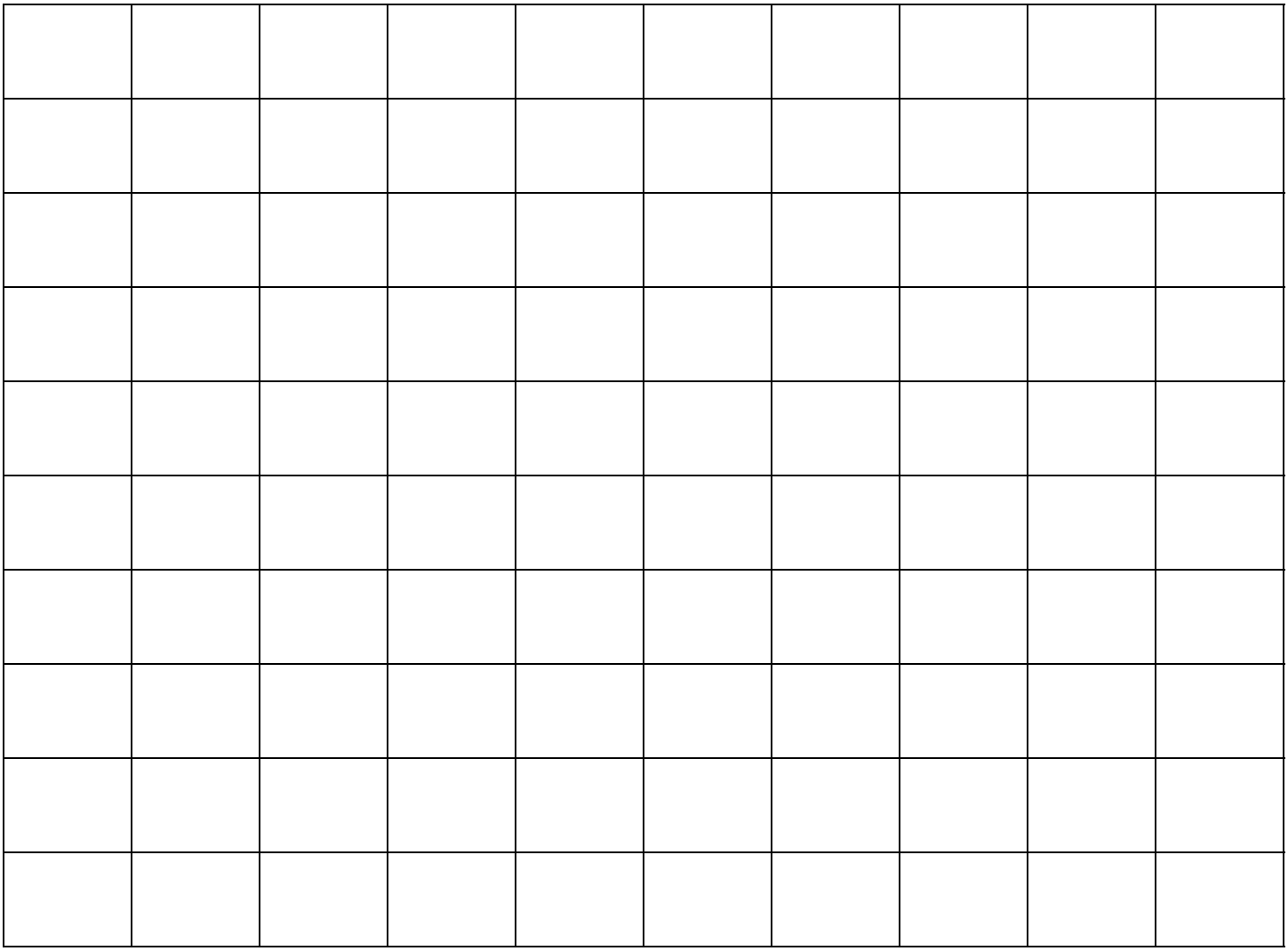
___ GCF
___ LCM
___ Fractions
___ Integers
___ Absolute Value
___ Graphing
___ Inequalities

Total: _____ / 80

Names: _____

Percent Design Project

Color in the hundreds square below. Create a custom design using at least 4 colors and up to 8 colors. On the back, using the table, write what percent of each color is represented. Also write this number as a fraction and decimal.



Color	Percent	Decimal	fraction