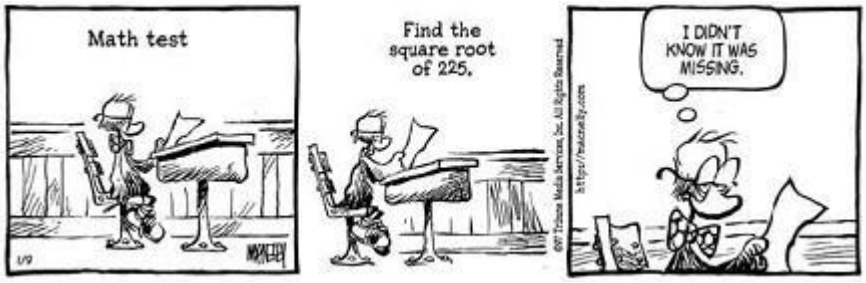
Math Projects

You are to select one of the following projects to complete for this marking period. The project will be worth 30% of your marking period grade, averaged in with your other tests. Each project follows a strict procedure. Choose only one project to focus on and follow the guidelines accordingly. Be creative, be articulate, and be precise!!!

Project is due on Monday, March 31, 2014.

Drawing a Cartoon



Summary: **This project must contain a comic strip that demonstrates or explains a mathematical technique or concept.**

Requirements: **The comic strip must contain...**

- **eight panels minimum**
- **clearly drawn characters,**
- **an explanation of a mathematical technique, concept, or rule,**
- **element(s) of humor, irony, drama, ...**

Performing a Demonstration

Summary: **This project is appropriate for students who enjoy showing people how to do new things and/or creating models. This may involve describing how proportions works by creating a shoebox model of your room, or build different ramps to show how slope works, or some other physical demonstration that involves a mathematical principle.**

Requirements:

The demonstration must contain...

- **a physical model, prop, object, or product,**
- **a detailed demonstration that explains a process involving some mathematical principle, property or concept,**
- **between 10 and 15 minutes of demonstration time**

Singing a Song

Summary: **This project is appropriate for those who enjoy using their singing talents to express a mathematical principle and/or concept.**

Requirements: **The singing project must contain...**

- **one page of lyrics that explain or describe a mathematical principle and/or concept,**
- **a 3 to 5 minute presentation either live or recorded (to be verified by teacher),**
- **a parody of an existing song or an original work,**
- **an emotional delivery [dramatic, humorous, ...]**

Role-Playing a Situation

Summary: **This project is appropriate for those who enjoy being creative in front of an audience.**

Requirements: **The role-playing project must contain...**

- **a TWO-THREE page typed script that explains or describes a mathematical principle and/or concept,**
- **a 5 to 10 minute presentation live**
- **a professional delivery [dramatic, humorous, informative, ...]**

Project Phases

All students will follow the seven phases below for their projects:

1. **Decide on a project type.**
2. **Develop an initial plan.**
3. **Have the plan approved by the teacher BY Monday, March 10, 2014.**
4. **Create the first draft of the plan.**
5. **Have the first draft approved by the teacher BY Monday, March 17, 2014.**
6. **Create the final draft.**
7. **The final draft will then be evaluated STARTING Monday, March 31, 2014.**

Determining the Grades

Projects will be worth a maximum of 100 points! Each project will be rated on its own merits based on the requirements detailed above. The grade will ultimately be determined by the teacher according to the following chart.

Factor	Weak ---- Strong
Creativity	0 1 2 3 4 5
Difficulty Rating	0 1 2 3 4 5
Math Content	0 1 2 3 4 5
Neatness	0 1 2 3 4 5
Presentation	0 1 2 3 4 5

Once the factors are determined the sum will be multiplied by four to determine the points for the project.

Creativity is a measure of originality.

The difficulty rating is based on the type of project that is chosen.

Math content is a value determined by the amount of subject matter that is within the project.

Neatness is a number that represents organization and cleanliness.

Presentation is determined by the report that is given in front of the class.

For example, let's say Peter Pan sings a song for his project: writes instead of types the lyrics, which contain creative versus that explains how to vaguely solve an equation, and then sings the song flawlessly in front of the class. He could earn a 4 for creativity, a 5 for difficulty, a 3 for math content, a 3 for neatness and a 5 for presentation. Peter would earn 4(4 + 5 + 3 + 3 + 5) = 80 points. 80/100 points is 80%.

On the other hand, George Grimly creates a proportioned model that is not accurately proportioned and without presenting it to the class. He has the printed out the dimensions of each section his model. George would earn a 4 for creativity, a 4 for difficulty, a 2 for math content, a 5 for neatness but a 0 for presentation. George would earn 4(4 + 4 + 2 + 5 + 0) = 60 points. 60/100 points is a 60%.