

Syllabus for Problem of the Week

Purpose:

Writing is an integral part of mathematics class for three main reasons:

1. Writing tends to enhance a person's learning of a concept because he or she is taking an active part by conveying knowledge instead of just absorbing the material and working through a set of problems.
2. The student receives individual feedback from the teacher in writing; the feedback may clear up any misunderstandings about the topic at hand.
3. The teacher is able to get an idea of a student's thought processes, as well as address any concerns that the student may have.

Materials:

The only materials you will need is access to Google Classroom or you may grab a paper copy in my classroom. Your problem of the week writing prompts will be completed on Google Classroom or on paper. These assignments will be **given on Monday** of each week and are **due on Thursday** of each week.

Presentations:

Students will be required to present their problem of the week at random times throughout the school year. Students will be chosen at random by the teacher and will have to present to their classmates. Classmates not presenting will follow proper etiquette of listening to fellow classmates presenting. This etiquette will be taught and reinforced with students throughout the school year.

Presentation Etiquette:

1. Voice: Project your voice and speak clearly.
2. Demonstration: Completes the problem with clarity and detail.
3. Diction: Precise, easily understandable, and articulate.
4. Mathematical Fluency: Showed understanding of the topic being discussed and answered questions thoroughly from the audience.

Listening Etiquette:

1. Be Courteous: Listen actively, remain quiet, and look at the presenter.
2. Be Attentive: Make sure you are listening to the presenter so that you can have open dialogue with the presenter once they are finished presenting.
3. Be Open-Minded: You might not agree with the presenter, but please be respectful when explaining your disagreement. Also, please wait until the presenter is finished before you say you disagree.
4. Be a Participant: Participate in the discussion after the presenter is finished presenting.

Grading:

The student presenting will get a grade on their oral presentation based on the four components listed above. The students in the audience will get a work & effort grade for listening and participating. Late entries will be graded according to whether it is presented or not. Entries that are not completed until late and presented orally will receive a 70%. Entries that are late and not presented orally will receive a 60% *if they are completed correctly and it is evident that they put in effort.*

Problem of the Week

Rubric

Steps in Problem of the Week	Beginning 1	Developing 2	Competent 3	Excelling 4
(MP5/MP7) Step 1: Mark the text	Text isn't marked.	Some mathematically relevant information is circled, underlined, or highlighted in the problem statement. Few or no given quantities are labeled with correct variables and irrelevant information is not crossed out.	Mathematically relevant information is circled, underlined, or highlighted in the problem statement. Most given quantities are labeled with correct variables and irrelevant information is not crossed out.	Mathematically relevant information is circled, underlined, or highlighted in the problem statement. All given quantities are labeled with correct variables and irrelevant information is crossed out.
(MP1) Step 2: Identify problem/question	The question isn't restated. Variables aren't identified.	The question isn't restated in the student's own words. Variables are identified but are incorrect or incomplete.	The question is restated in the student's own words, but variables are not identified correctly. OR The variables are identified correctly, but the question isn't restated in their own words.	Fully restates the question from the problem statement in the student's own words. Correctly identifies the unknown variable(s) present in the word problem.
(MP2/MP4/MP5) Step 3: Solve/calculate	No diagrams are drawn. No calculations are shown.	Diagrams are drawn but are inaccurate. Minimal calculations are shown, or calculations have many arithmetic errors.	Accurate diagrams are drawn. Calculations shown are correct with minimal arithmetic errors. Steps shown are listed in a semi-organized fashion.	All necessary diagrams/formulas/mathematical tools are present and listed. Steps are written in an organized, logical, and mathematically correct fashion. Calculated values are accurate.
(MP 6) Step 4: State solution in a complete sentence	The solution isn't stated in a complete sentence or is incorrect.	The question is restated and responded to, but not in a complete sentence. Grammar and punctuation have some errors.	The question is restated and responded to in a complete sentence. Grammar and punctuation have few errors.	The question is restated and responded to in a complete sentence. Grammar and punctuation have no errors.
(MP3/MP5/MP8) Step 5: Paragraph to explain process, strategies, and answer	Student doesn't write a paragraph to explain reasoning and process.	An explanation paragraph is attempted, but lacks organization and precision in relation to mathematical work.	The student briefly explains their process and reasoning. Explanation isn't organized or the paragraph doesn't include properties, definitions, or theorems.	Student fully explains mathematical reasoning used in a logical and organized fashion. Clear explanations of each step from mathematical work are present. Any properties, definitions, or theorems used in the problem are referenced and defined.