

Critical Thinking Template

Name _____

Problem

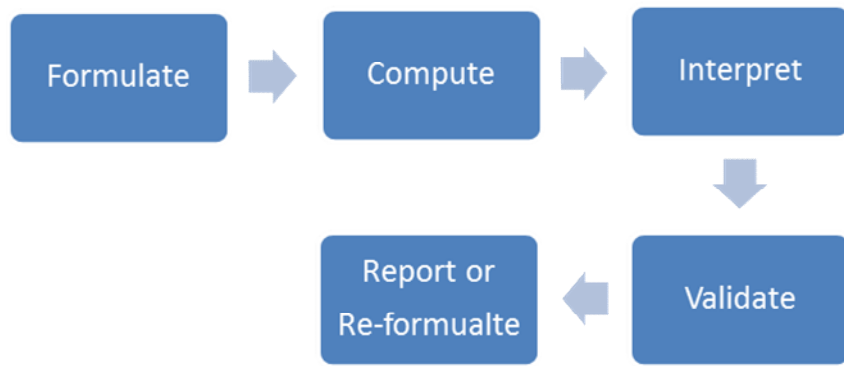
Formulate

Compute

Interpret & Validate

Report

Mathematical Modeling Process:



Challenge Question Rubric:

FEATURES	1	2	3
Formulate – Plan & Brainstorm	The plan and brainstorm states basic steps but does not have an explanation as to why the steps are being taken or is missing multiple steps to solve the problem	The plan and brainstorm is present in writing but is missing key elements in solving the problem and there may be some confusion in interpreting the content of the problem	The plan and brainstorm explains in writing how the problem is being approached. The plan and brainstorm shows clear understanding of the problem
Compute - Mathematical Work	Less than half the steps are included or incorrect	At least half the steps are included or correct	All steps are included and correct
Validate - Validation of Plan	The problem is explored in only one way, and the plan chosen is not validated through counterexamples.	The problem is explored in more than one way, however there is a lack of counterexamples and justification as to why plan, work, and final answer are correct in terms of the original problem.	The problem is fully explored, using counterexamples to justify why the plan, work, and final answer chosen are correct in terms of the original problem.
Final Answer	Final answer is incorrect	Some components of the final answer are correct while some are incorrect	All components of the final answer are correct
Report – Explanation & Meaning of the Final Answer	The meaning of the answer is not tied back to the context of the problem and does not clearly justify why the answer is correct	The meaning of the answer is tied back to the context of the problem but does not clearly justify why the answer is correct	The meaning of the answer is tied back to the context of the problem, clearly explained in writing, and justifies why the final answer is correct

Problem Solving Procedure

1) Determine what information is important

- Underline, Circle, Take Notes, Draw a Picture

2) Define a Variable

- What are you trying to find?
- Example: Let t = the # of tickets sold

3) Create a mathematical model

- Write an equation, inequality, create a table or graph using the important information given

4) Solve

5) Check your answer

- Does it make sense as a solution to the problem?

Metacognitive Reflection

Self-Assessment

Ch. 4 Test – Graphing Linear Equations

<p>Questions regarding <i>relations</i></p> <ul style="list-style-type: none"> ✘ I can determine the domain of a relation ✘ I can determine the range of a relation ✘ I can determine if a relation is a function or not 	Yes	Almost	No
	Yes	Almost	No
	Yes	Almost	No

***Write and answer an example problem that represents these objectives.**

*If you marked “Almost” or “No” for any topic, **write** questions or comments below:

Page(s) I can find this information:

<p>Questions regarding <i>slope</i></p> <ul style="list-style-type: none"> ✘ I can define what the slope of a line is ✘ I can find the slope of a line given any equation ✘ I can find the slope of a line given 2 ordered pairs ✘ I can find the slope of a line given a graph 	Yes	Almost	No
	Yes	Almost	No
	Yes	Almost	No
	Yes	Almost	No

***Write and answer an example problem that represents these objectives.**

*If you marked “Almost” or “No” for any topic, **write** questions or comments below:

Page(s) I can find this information:

1. _____ is connected to _____ because

2. _____ is connected to _____ because

3. _____ is connected to _____ because

4. _____ is connected to _____ because

5. _____ is connected to _____ because

6. _____ is connected to _____ because

7. _____ is connected to _____ because
