



# Your Math Modeling Roadmap:

## A Checklist for Success!

Step

1



### Understand the Problem

What's the situation and what am I trying to figure out?

- ☐ I can explain the problem in my own words.
- ☐ I listed what I notice and what I wonder.
- ☐ I wrote down my questions.
- ☐ I listed the key numbers I was given.
- ☐ I know what the final goal is.

Step

2



### Make a Plan

How will I approach this?

What do I need?

- ☐ I listed the important quantities or variables.
- ☐ I decided what information I might need to look up or measure.
- ☐ I decided on what assumptions need to be made.
- ☐ I brainstormed what kind of math might help me.

Step

3



### Build the Model

How can I create something using a math visual?

- ☐ I created a mathematical representation of the situation (that's a graph, equation or diagram).
- ☐ I have labeled my variables and shown my calculations clearly.
- ☐ My math work is organized so someone else can see my process.



Step

4



### Analyze & Check

Does my answer make sense?

What does it mean?

- ☐ I have a solution!
- ☐ I checked my calculations for errors.
- ☐ I can explain what my numbers and results mean using the original problem situation.
- ☐ I asked myself, "Is this answer reasonable?"
- ☐ I thought about other possible solutions or outcomes.

Step

5



### Revise & Refine

How can my model improve or change?

- ☐ I thought about the limits of my model (are there situations where it might not work?).
- ☐ I thought about what I could change about my model to make it more accurate.
- ☐ I thought about other mathematical tools that might help me make my model clearer.

Step

6



### Report & Share

How can I report and explain my findings?

- ☐ I thought about the best way to share my solution (presentation, report, graph).
- ☐ I can explain my process, my model, and my conclusion.