

Problem-Solving Checklist (Template)

1) Define the problem:

What are you being asked to do? What type of problem is it? What tools could you use to help you solve this?

2) Information given:

List all the information given and state any assumptions you may have to make.

3) Devise a plan:

Bullet points and simple steps are perfectly fine! Tell us what you'll do to get to the answer(s) you are looking for. Will you draw a diagram/write an equation/use a formula?

4) Execute your plan:

Golden Tips

- Start with algebraic manipulation and substitute numbers at the end – You'll decrease the chances of making mistakes!
- Show your work! This way it's easier to follow and understand your reasoning.
- Keep short notes of what you are doing and why. This will improve your study skills and help you retain this information on the long term, that is, you won't forget it as soon as you are done working on this problem!

5) Evaluate your solution

For the context of your problem, use at least one of these criteria to check your answer

- ☐ Consider whether the answer makes sense in the context of your problem and explain how/why
- ☐ Check that the units of the solution make sense
- ☐ Consider the algebraic sign (positive or negative) of the solution
- ☐ Evaluate whether the order of magnitude of the solution is reasonable
- ☐ Verify the solution by plugging it back into the original problem
- ☐ Confirm the solution by solving the problem using another method