# Problem Solving Worksheet

You are to apply what we have learned about Polya’s Heuristic. Although success is highly desirable, it is more important that you can see that you will move forward in solving a problem more

# Step 1 – Do you understand the problem?

## Write down your understanding of what you need to do.

* What is the actual problem
* What is the data
* Are there conditions, stipulations?
* What is known, unknown?
* Break the problem into parts - can they be understood on their own? Can they be **solved** on their own?
* Explain it to me like I am 5
* Draw the problem. Rewrite the problem.

# Step 2 – Devise a plan

* What is the connection between what we know and don’t know?
* Are there similar/related problems that we do know or can research that we can use?
* Look at the unknown – do other solutions (related or not) have the same problem domain? Can we use them?
* Devise a plan of attack. Decide how you will make a start.

# Step 3 – Implement your solution

* Describe your solution and how it works.
* Prove you are solving the problem

# Step 4 – Evaluate what you have done

* What could you have done better? More efficiently?
* What ideas were a waste of time (That couldn’t be seen at the time)
* What have you learned that will make V2 more efficient, better, more accurate, etc.