Step One

Understand the Problem

Can you state the problem in words?
What are you trying to find or do?
What are the unknowns?
What information do you obtain from the problem?
What information, if any, is missing or not needed?

Step Two

Make a Plan

Look for a pattern.
Remember related problems.
Break the problem down into different parts.
Make a table.
Make a diagram.
Write an equation.
Use a guess and check.
Work backward.
Identify a subgoal.

George Polya's Steps to Problem Solving

Step Three

Do the Plan

Implement the strategy in Step 2 and perform the necessary maths calculations.
Check each step of the plan as you do it.
Keep an accurate record of your work.
Organise your work into easy to understand visuals.
Double check your maths work.

Step Four

Look Back

Check the results in the original problem.
Interpret the solution in terms of the original problem. Does your answer make sense? Is it reasonable?
Determine whether there is another method of finding the solution.
If possible, determine other related or more general problems for which the techniques will work.