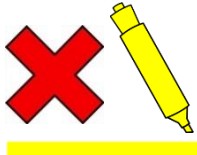


# PROBLEM SOLVING STRATEGIES



## What's Important

Sometimes problems give you more information than you need. Identifying what is important and what is not needed can help to solve the problem.

**Step 1** Highlight the important information.

**Step 2:** Cross out the information that is not needed.



## Look For a Pattern

Sometimes looking for a pattern in items, numbers or events can make it easier to solve a problem.

**Step 1:** Look for a pattern in the way the numbers are changing.

**Step 2:** Continue the pattern to solve the problem.



## Estimate, Check and Improve

Sometimes you can make an informed estimate of the answer to a problem then check if your estimate is reasonable. If you're not close the first time, improve your thinking and check again.

**Step 1:** Read the problem carefully.

**Step 2:** Determine a reasonable estimate for the answer.

**Step 3:** Check if your estimate is correct.

**Step 4:** If not, use what you have learned to improve your estimate and check again.

**Step 5:** Continue to adjust your estimate & check it until you find the correct answer.



## Show the Problem Using Numbers or Symbols

Sometimes using numbers and symbols helps us to solve the problem in a faster, easier way.

**Step 1** Write a number sentence.

**Step 2:** Solve using Mathematical Conventions.



## Draw a Picture

Sometimes drawing a picture or a diagram helps you to 'see' the problem more clearly and easily.



## Use Materials or Act It Out

Sometimes using actions or materials can illustrate the problem and help solve it.

**Step 1:** Select objects to match parts of the problem.

**Step 2:** Arrange the objects for one possible solution.



## Use a Table

Sometimes if you organise your information into rows and columns, you can see all the possibilities.

**Step 1** Decide how you will show the information

**Step 2:** Work back through the problem.



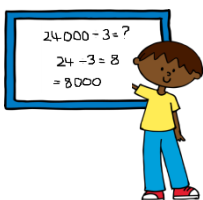
## Work Backwards

Sometimes you may know the end result, but don't know the starting point.

You can begin at the end of the problem and work backwards.

**Step 1** Start with the information you've been given.

**Step 2:** Work back through the problem.



## Simplify

Sometimes we can use smaller numbers to simplify problems.

**Step 1** Change larger numbers into smaller, more manageable numbers.

**Step 2:** Complete problem with the smaller numbers.

**Step 3:** Use the same method with the larger numbers.