The FOUR stages are:

1. Understand the problem
2. Devise a plan
3. Carry out the plan
4. Look back

Let us look at the scenario below and apply the Polya’s FOUR stage of problem solving.

Tendai was having a birthday party and decided to celebrate with his classmates at KW TVET College. She invited 20 girls and 10 boys. She made one dozen blue muffins and 3 dozen red muffins. At the end of the party there were only 5 muffins left. How many muffins were eaten.

**Solution**

**Understand the problem**

* State the problem in your own words
* Figure out the unknowns
* Figure out what the problem tells you is important
* Identify any irrelevant information to the problem
* So in our case, the information about gender, name of the college and colour of muffins is not important.
* What is important is how many muffins were left from the total made
* So we understand the problem.

**Devise a plan**

To solve a problem, we can:

* Look for a pattern
* Review similar problems
* Make diagrams or charts from the problem presented
* Use guessing and checking
* Identify a sub-goal
* In our scenario, we can identify a sub-goal which is the total number of muffins made. We can then write the equation with the unknown to find the solution as shown

(3 dozen + 1 dozen) – 5 muffins= number eaten

**Carry Out the Plan**

I dozen = 12

(3 x 12) +(1 x 12) – 5=number eaten

36+12-5=number eaten

48-5=number eaten

Number eaten =43

**Looking Back**

Have we calculated the total number of muffins which were eaten. Answer is yes.

Can we verify our answer.

Yes. 48 -5 = 43 muffins.