

U.P.S.L

U-Understand

Understand what the problem is asking and write it down in your own words.

- Read, Stop, and Jot
- What is the problem about?
- Rewrite the question in your own words.

P-Plan

Choose a problem solving strategy.

Strategies:

- Draw a picture
- Find a pattern
- Make a table, chart, or graph
- Organized list
- Guess, check, and revise
- Act it out (use coins, base ten blocks, etc)
- Use logic

S-Solve

Solve the actual problem to find the answer. Remember there can be several ways to solve the same problem.

Now, Write your answer in a complete sentence.

(check)

Twice is nice! Try solving a second way.

When checking your work, check:

- Addition with subtraction
- Subtraction with addition
- Skip counting for multiplication
- Multiplication for division

Does your answer make sense?

Did you answer the question that was asked?

Use the questions below to explain your thinking:

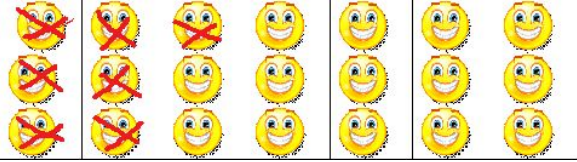
1. What are you trying to figure out?
2. How did you solve it?
3. What were your results?
4. How do you know you were right?

How to solve a problem using UPSL

The problem:

Mr. Johnson's class has 21 students. If seven of his students are absent due to heavy rainfall on a particular day, how many students does he have in his class on that day?

This is (roughly) what the students' papers should look like when solving a problem using UPSL.

<p style="text-align: center;">Understand</p> <p style="text-align: center;">What is the problem asking?</p> <p>Mr. Johnson has 21 students, but 7 are out sick. How many students does Mr. Johnson have in class?</p>	<p style="text-align: center;">Plan</p> <p style="text-align: center;">How are you going to solve the problem?</p> <p style="text-align: center;">Draw a picture</p>
<p style="text-align: center;">Solve</p> <p style="text-align: center;">Solve the problem by showing your work</p> <p style="text-align: center;">Draw a picture</p>  <p>There are 14 students present today in Mr. Johnson's class.</p>	<p style="text-align: center;">Look back</p> <p style="text-align: center;">Check your work (solve it a different way)</p> <p style="text-align: center;">Solve the problem a different way.</p> <p style="text-align: center;">Choose an operation</p> <p style="text-align: center;">$21 - 7 = 14$</p> <p style="text-align: center;">Check my math:</p> <p style="text-align: center;">$14 + 7 = 21$</p>
<p>I am trying to figure out how many students Mr. Johnson has in his class. He has 21 students, but 7 are out sick. I solved it by drawing a picture. I drew 21 smiley faces and crossed out 7 because 7 students are out sick. I counted the smiley faces that were not crossed out and got 14. So, Mr. Johnson has 14 students present today. To check my work, I used the strategy choose an operation. I subtracted 21 and 7. I got 14. I checked my subtraction by adding fourteen and 7 together.</p>	