

# CPU - Program 1

## How Computers Work

Greetings CPU! Your job as the **Central Processing Unit** (CPU) is to execute the following program and tell the other components what they need to do:

- Math commands like "Add 5 to x" or "Subtract 3 from y" should be sent to the ALU.
- Drawing commands like "Plot(x,y)" should be sent to the Display.  
First, ask the Memory for the current values of x and y, then give them to the Display.

Be sure to check off each line of the program as you finish it (so that you don't lose track of where you are).

- |  |  |
|--|--|
| <input type="checkbox"/> Add 4 to x        | <input type="checkbox"/> Add 1 to x        |
| <input type="checkbox"/> Add 2 to y        | <input type="checkbox"/> Add 4 to y        |
| <input type="checkbox"/> Plot (x,y)        | <input type="checkbox"/> Plot (x,y)        |
| <input type="checkbox"/> Add 3 to x        | <input type="checkbox"/> Subtract 3 from x |
| <input type="checkbox"/> Add 2 to y        | <input type="checkbox"/> Add 1 to y        |
| <input type="checkbox"/> Plot (x,y)        | <input type="checkbox"/> Plot (x,y)        |
| <input type="checkbox"/> Subtract 6 from x | <input type="checkbox"/> Subtract 5 from y |
| <input type="checkbox"/> Plot (x,y)        | <input type="checkbox"/> Plot (x,y)        |
| <input type="checkbox"/> Add 5 to x        | <input type="checkbox"/> Add 4 to x        |
| <input type="checkbox"/> Subtract 3 from y | <input type="checkbox"/> Add 2 to y        |
| <input type="checkbox"/> Plot (x,y)        | <input type="checkbox"/> Plot (x,y)        |
| <input type="checkbox"/> Subtract 1 from x | <input type="checkbox"/> Subtract 6 from x |
| <input type="checkbox"/> Add 5 to y        | <input type="checkbox"/> Plot (x,y)        |
| <input type="checkbox"/> Plot (x,y)        | <input type="checkbox"/> Add 3 to x        |
| <input type="checkbox"/> Subtract 3 from x | <input type="checkbox"/> Add 4 to y        |
| <input type="checkbox"/> Subtract 1 from y | <input type="checkbox"/> Plot (x,y)        |
| <input type="checkbox"/> Plot (x,y)        | <input type="checkbox"/> Add 3 to x        |
| <input type="checkbox"/> Subtract 4 from y | <input type="checkbox"/> Subtract 5 from y |
| <input type="checkbox"/> Plot (x,y)        | <input type="checkbox"/> Plot (x,y)        |
| <input type="checkbox"/> Subtract 1 from x | DONE!                                      |
| <input type="checkbox"/> Add 1 to y        |  |
| <input type="checkbox"/> Plot (x,y)        |  |
| <input type="checkbox"/> Add 4 to x        |  |
| <input type="checkbox"/> Subtract 1 from y |  |
| <input type="checkbox"/> Plot (x,y)        |  |