Creative Programming Exercises

Hello You

Visit:

http://processing.org/

Don't forget the exhibition …

Now start thinking about what you could make if you had more knowledge about programming …

-Collect a number (at least 7) of examples that may inspire you to later go make some computational works yourself. Do not just collect the examples but try to formulate what it is that you like about these examples as well.

Open your own processing environment, and

- Make a program that prints out the following table (but with the results):

```
11  * 21 =
12  * 20 =
13  * 19 =
14  * 18 =
15  * 17 =
16  * 16 =
17  * 15 =
18  * 14 =
19  * 13 =
20  * 12 =
```

- Think: The program you wrote seems too much work … what kind of constructions would you like to have that allow you to specify this task using far less text?

- Save this program as a pde file. How can you use such a file?
   Try this.

- Save this program as an applet. How can you use this applet?
   Try this.

- Now write a program that creates a graphical representation of the above table where you can see how the results vary for the various values in the first column.

BELOW IN GREEN IS THE EXERCISE YOU NEED TO SUBMIT

-Make a program that creates a drawing D with at least 15 elements, experimenting with color and various drawing parameters as well. Change drawing parameters during the drawing.
Save this program.

- Make a new version in which you now change the order in which you draw the elements drastically, what happens… do you get the same drawing? Think. Then try. If the results where different how can you repair this without restoring the original order?

- Now make a new version of the program that creates the mirror image of the previous drawing.   Think:What is the basic principle that you always apply to change the code?

- Think: How would you need to change the code turn the whole drawing 180 degrees? How would you quickly test whether this works?

- Is it possible to make the color negative of your previous drawing? Do so.
   Think: What is the principle you use here to change the code?

-And now try to make a version of this drawing that changes the size of all the elements when you move the mouse, making things bigger when you move to the left.

-Now experiment with what is possible and just make something that moves in an interesting way as you move the mouse.

-Think: what possibilities do you feel that you are still missing?

- Think: Would it be possible to make a program in Processing that prints itself?