## Homework 03 -

This homework is to get more experience with ifs by modifying the programs from lab. We also want you to have some fun with keyboard input.

## Rock Paper Scissors against the computer

- □ Modify the Rock Paper Scissors to take in input from the user. They should be able to type "Rock", "Paper" or "Scissors" to play.
  - Do something sensible if the user types in something other than "Rock", "Paper" or "Scissors"
- ☐ Keep score of the number of times each player has won.

## Number guessing in reverse

- ☐ Make a project where the user gets to pick a random number and the computer has to guess it.
  - Have the computer ask the user to type in the maximum value.
  - Have the user type in "higher", "lower" or "correct" to respond to the computer's guesses.
  - Have the computer keep guessing a number until the user types in "correct".
  - Make the computer smart so that each guess cuts the number of possible numbers in half.

## Electric Keyboard

Using what we've learned so far, you should be able to make an electric keyboard! Here is a little example of what you could do:

```
when a key pressed

play note 60 v for 0.5 beats

when s key pressed

play note 62 v for 0.5 beats

when d key pressed

play note 64 v for 0.5 beats

when f key pressed

play note 65 v for 0.5 beats
```

- ☐ Try turning your computer keyboard into an electric keyboard.
  - Make notes on the next page about how the piano keys relate to the computer keys.
- □ What your program should do:
  - Create a block so that you can control the volume with the up and own arrow keys.
  - $_{\odot}$  Have at least 5 other keys that do something (you can do WAY more than this if you want)



