## Day 6 Basic Program Control

**array**- indexed group of data storage locations that have the same name and are distinguished from each other by subscript or index

arrays must be declared. type, name, size

subscript of array can be another variable

for statement- executes a block of one or more statements a certain number of times

```
for ( initial ; condition ; increment )
```

statement;

exits loop when condition = 0

can omit init and increment just leave ; for ex: for ( ; condition ; ) (which is basically just a while loop)

init can be any valid c expression, can be concatted with commas:

```
for ( ("Sorting..."), x=0; condtion; increment)
```

; can be a statement

can nest these functions- example of printing box of Xs on pg. 131

**while statement-** executes a block of statements as long as a specified condition is true

while (condition)

statement;

when initialization and updating are required, usually use **for**. when only having condition trying to meet, use **while**. need statements to be executed at least once use **do...while** 

**do...while**- tests for condition at end of loop rather than beginning. statements are always executed at least once

do { statements; } while (condition);