Iterative constructs

while (Condition) {  
  Statements;  
}  
loop body
/* Code to print powers of 2 until 100 */

int power = 0, PowerOfTwo = 1;

while (PowerOfTwo < 100)
{
    printf( "2 to the power of %d is %d\n", power, PowerOfTwo);
    power = power +1;
    PowerOfTwo = PowerOfTwo * 2;
}
for statement

```
for (init; test; reinit)
{
    loop body
}
```
/* Code to print powers of 2 until 100 */

int power = 0, PowerOfTwo = 1;
```c
int power = 0, PowerOfTwo = 1;

for (power = 0; power < 7; power++)
{
    printf("2 to the power of %d is %d\n", power, PowerOfTwo);
    PowerOfTwo = PowerOfTwo * 2;
}

2 to the power of 6 is 64

power < 7  \iff  7 > power

(i) break    (ii) Continue.

break causes the loop to be terminated

Continue causes the rest of loop to be skipped. and
enters the next iteration
```
for (x=0; x<5; x++)
{
    if (x==3)
    {
        break;
    }
    printf("%d", x);
}

for (x=0; x<5; x++)
{
    if (x==3)
    {
        continue;
    }
    printf("%d", x);
}