Computer Programming: Skills and Concepts
Tutorial 2 (Tue 10 Oct – Fri 13 Oct)

Loops

Consider the following code:

```
int main(void) {
  int n = 5;
  int i;
  for(i=0;i<2;i++) {
    printf("computing %d minus %d ...", i, n);
    n = i-n;
    printf("n is %d\n", n);
  }
  return EXIT_SUCCESS;
}
```

What is printed on the screen?

Programming

The mathematical operation $n!$ is defined as $n! = (n-1)! \times n$ for $n > 0$ and $0! = 1$. Write a program that asked a user for a number n, complains if that number is negative, and computes and outputs $n!$ otherwise.

Functions

Consider the following code:

```
int i = 3;

int triple( int a ) {
  a = a*3;
  return a;
}

int main(void) {
  triple(i);
  printf("i, triple(i): %d, %d", i, triple(i));
}
```

Your goal is to work out what will be printed on the screen by this program (preferely *without* running the program). It will help you if you make drawings of the "program environment" like I have been doing in some lectures.