

ITSC202 - Project 10-01

Calculate Pascal Triangle

Part A, weight 0.6

Write a program **pascalt.c** that will first calculate, then print, pascal triangle up to size defined by macro:

```
#define COUNT 5
```

The macro COUNT can be overridden by single command line parameter. If it is set to 0, or the macro is not defined at all, then the program shall generate as many rows as possible such that the last row does not exceed 80 characters. The program will have following structure:

Declare two dimensional integer array for the pascal triangle numbers:

```
int pascal[COUNT][COUNT];
```

```
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
```

Part B, weight 0.4

pascalsym.c: The triangle shall be symmetrically aligned.

```
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
```

Part C, weight 0.2

pascaldia.c: Print the triangle forward and backward to form a diamond.

```
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
   1 3 3 1
    1 2 1
     1 1
```

