

APCS – Mr. Ascione

Pascal's Triangle



OBJECTIVE: This lab was designed to teach you how to use a matrix, an array of arrays.

SPEC : Basic Pascal's triangle rules are as follows:

The first and last values of the row are always 1.

The other values in the row are computed using the following formula :

The i th value in the row = $(i-1)$ st value of the previous row + the i th value in the previous row.

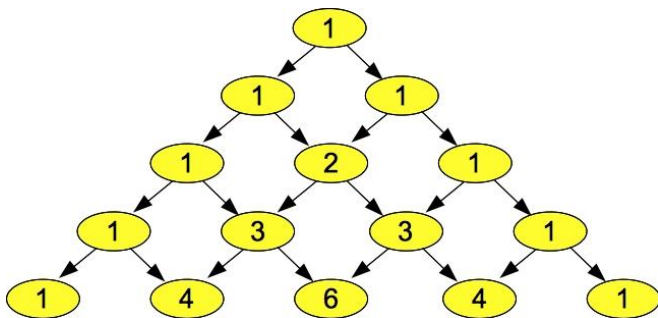
For instance, the second value of the 4th row is 3 since the 1st and 2nd values of the 3rd row are 2 and 1.

Extra Credit:

```
//OUTPUT EACH TRIANGLE
```

```
//AS AN EQUILATERAL TRIANGLE
```

```
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 1 5 10 10 5 1
```



SAMPLE OUTPUT:

```
C:\Windows\system32\cmd.exe
Size 2:
1
1 1

Size 3:
1
1 1
1 2 1

Size 4:
1
1 1
1 2 1
1 3 3 1

Size 5:
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1

Press any key to continue . . .
```

Files Needed:

PascalsTriangle.java

PascalsTriangleRunner.java