

Cody Problem 37. Pascal's Triangle

Given an integer $n \geq 0$, generate the length $n+1$ row vector representing the n -th row of [Pascal's Triangle](#).

Examples:

```
% pascalTri(0)
% ans =
%      1
%
% pascalTri(1)
% ans =
%      1      1
%
% pascalTri(2)
% ans =
%      1      2      1
```

Scratch Pad

```
pascalTri(0)
```

```
ans = 1
```

```
pascalTri(1)
```

```
ans = 1x2
      1      1
```

```
pascalTri(2)
```

```
ans = 1x3
      1      2      1
```

Solution

```
function y = pascalTri(n)
    n = n + 1;
    if n == 1
        y = 1;
    elseif n == 2;
        y = [1 1];
    else
        y = [1,1];
        for i=2:n-1
            y = conv([1 1],y);
        end
    end
end
```