

## Python OOP Week 8 HW

### Question 1

Note: this function does not return anything.

Write a function to draw an equilateral triangle given the height as input. For example, if height = 5 draw the following

```
*
***
*****
*****
*****
```

To start you off here is the beginning of the function.

```
def draw_equilateral_triangle(height):
    blah
    blah
```

### Question 2

Note: this function does not return anything.

Write a function to draw a letter P given height as input. You can assume the height will always be at least 4. For example, if height = 4 then draw the following

```
*****
*   *
*****
*
```

Ugly right? If the height parameter is 7 then print the following

```
*****
*   *
*****
*
*
*
*
```

### Question 3

Write a function that takes a in a list of positive integers and returns the number that is created when all the numbers in the list are combined together. For example, if the input list is [1, 2, 67, 34] then the function should return 126734.

### Question 4 [Challenge]

Write a function that calculates the  $n^{\text{th}}$  Fibonacci number and returns it. The first number is 1, the second number is 1, the third number is 2 and the fourth number is 3. So if  $n = 5$  that means the function needs to return the 5<sup>th</sup> Fibonacci number which is 5. The  $n^{\text{th}}$  Fibonacci number is always the sum of the two previous numbers. Bonus points if you do it using recursion.

```
def calculate_fibonacci(n):
```