CS 160
CS Orientation

Loops and Functions...
Odds and Ends...

• In-class exercises in Canvas
• Assignment #4 discussion
Revisit In-class Exercise #2

• Write a loop to print the following picture:

```python
print("   *   ");
print("  ***  ");
print(" ***** ");
print("*******");
```
For loop example...

```python
y=0;
for x in range(10):
    if(x%2):
        y=y+1;
    print(y);

# print the triangle below
#
# ***
# *****
#********
spaces = 3;  #start with three spaces
stars = 1;  #start with one star
for x in range(4):  #for the 4 lines
    for s in range(spaces):  #print number of spaces
        print(" ", end="");
    for st in range(stars):  #print number of stars
        print("*", end="");
    print("\n");
    spaces-=1;  #there is one less space for each row
    stars+=2;  #there is 2 more stars for each row
```

Let’s make it better...
Try making it into a while...
Pre-defined Functions

- May need to import a library
- Use the function from library/object
- Example:
  ```python
  import math
  math.sqrt(4);
  ```