CS 160
CS Orientation

Finish Repetition and Strings

Begin Functions
Odds and Ends

• Demo Assignment #4 this week!!!
• Get help early!!!

• Videos:
  – https://code.org/educate/resources/videos

• Visualize your Code:
  http://pythontutor.com/visualize.html#mode=edit
In-class Exercise #4

• Get into groups of 4-5.
• Explain what each of line in this code does and tell me what the output is:

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

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What happens when you enter bad data?

- Where/when does the error occur?
Strings

• Create a string
  my_string=“hello”;

• Access a character
  my_string[0] #gives you first character

• Length
  len(my_string)
Demo...
In-class Exercise #4 cont...

• Without using a built-in function to do the checking for you…
  – How will you make sure you get a good positive integer from the user?
Demo...
In-class Exercise #4 cont...

• Write a loop (or loops) to print the following picture:

```python
print("   *   ");
print("   ***  ");
print("   ***** ");
print("   ********");
```
Demo...
Decomposition

• What is it?

• What are functions?

• Examples of daily life functions???
Pre-Defined Functions

• May need to import a library
• Use the function from library/object
• Example:
  import math
  math.sqrt(4)
Programming Demo/Functions