CS 160
CS Orientation

Programming Structure & Functions
Chap. 4 & 5
Odds and Ends...

• Assignment 5 Due today
• Get it demoed!!!!!!

Not sure about speaker on Wed. ???

<write() function>
Quiz 6
What if the problem changed?

• What if you have to make sure the user gives you a valid number of employees?
  • Integers

• What if you have to make sure the user gives you a valid hour and pay?
  • Floats
  • No negative
  • Zero or one decimal or dots/periods

• Required functions:
  get_num_employees()
  main()
  ...
  10, 131
def main():

    num_str = input("Enter num employees: ")

    for i in range(len(num_str)):
        if (not(num_str[i] >= '0' and num_str[i] <= '9')):
            print("You idiot!!!")
            break;

    if (i == len(num_str)):
        num = int(num_str)
    for x in range(num):
        pay = float(input("Employee " + str(x+1) + " pay: "));
        hours = float(input("Employee " + str(x+1) + " hours: "));
        wages = pay * hours;
        print("Your gross pay is " + str(wages));

main();

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Quiz #6 Finished Solution...

```python
1 def is_pos_int(s):
2     for i in range(len(s)):
3         if(not(s[i]>=0' and s[i]<=9')):
4             print("You idiot!!!");
5             return False;
6     return True;

7 def is_pos_float(s):
8     dot = 0;  # at first we haven't seen one
9     for i in range(len(s)):
10    if(s[i]=='.' and dot==0):
11        dot += 1;
12    elif(not(s[i]>='0' and s[i]<='9')):
13        print("You idiot!!!");
14        return False;
15     return True;

16 def main():
```

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def main():
    pay = 0; hours = 0;
    num_str = input("Enter num employees: ");
    if(is_pos_int(num_str)):
        num = int(num_str);
        for x in range(num):
            num_str = input("Employee " + str(x+1) + " pay: ");
            if(is_pos_float(num_str)):
                pay = float(num_str);
            num_str = input("Employee " + str(x+1) + " hours: ");
            if(is_pos_float(num_str)):
                hours = float(num_str);
                wages = pay * hours;
        print("Your gross pay is " + str(wages));
main();
What if more changed?

• What if we want to save the pay and hour information for the employees?
• How will this change our program?

\[
\begin{align*}
\text{num} & \leftarrow \text{number of employees} \\
\text{I want an array of 2} \\
\text{pay} & = [0J \times \text{num}, \text{1st employee}] \\
\text{hours} & = [0J \times \text{num}, \text{1st employee}] \\
\end{align*}
\]