

*\*This is a hypothetical HW description to provide a concrete example of how to implement different simple functions and what a finished assignment should look like for full credit.\**

CS 1301

## **Individual Homework X – How To Turn In Your HW**

**Due: Friday, February 12th, before 11:55 PM**

**Out of 30 points**

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**Files to submit:**      1. HWx.py

### **This is an INDIVIDUAL assignment!**

Collaboration at a reasonable level will not result in substantially similar code. Students may only collaborate with fellow students currently taking CS 1301, the TA's and the lecturer. Collaboration means talking through problems, assisting with debugging, explaining a concept, etc. You should not exchange code or write code for others.

For Help:

- TA Helpdesk – Schedule posted on class website.
- Email TA's or use T-Square Forums

Notes:

- **Don't forget to include the required comments and collaboration statement (as outlined on the course syllabus).**
  - **Do not wait until the last minute** to do this assignment in case you run into problems.
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## **Part 1 – Simple Functions**

You will write a few python functions for practice with the language. In your HW1.py file, include a comment at the top with your name, section, GTID/Email, and your collaboration statement. Also include each of the following functions.

1. greet
2. twoPower
3. rectangleArea

Function Name: **greet**

Parameters:

**None**

Return Value:

**None**

Description:

1. Write a user-interactive function to greet the user, using his or her name.
2. Prompt the user to enter his/her name with a descriptive message.
3. Print out a personalized meeting with the user including the inputted name (e.g. "Hello, [name] nice to meet you!").

Function Name: **twoPower**

Parameters:

**An integer**

Return Value:

**None**

Description:

1. Write a function that raises the integer 2 to the power of the parameter entered (You may use the `math.pow(base, exponent)` function.)
2. Print a descriptive result so the output's meaning is clear (e.g. "2 to the power 2 is 4").

Test Case:

`twoPower(5)`

Output:

2 to the power 5 is 32

Function Name: **rectangleArea**

Parameters:

**Two integers**

Return Value:

**An integer**

Description:

1. Write a function that takes two integer parameters representing the length and width of the sides of a rectangle
2. Return the area of the rectangle.

$\text{Area} = \text{length} * \text{width}$

Test case:

```
python>>> area = rectangleArea(4, 5)
```

```
Ok
```

```
python>>> area
```

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## Grading Rubric

### Grading

You will earn points as follows for each function that works correctly according to the specifications.

#### Simple Function

**30 points total**

<b>greet</b>	<b>10</b>
<b>twoPower</b>	<b>10</b>
<b>rectangleArea</b>	<b>10</b>