

MSBA Bootcamp Problem Set 01

Function Created: `print_num`

- Your code should print the numbers 0 to 5 **horizontally**
`0 1 2 3 4 5`

Function Created: `print_upto`

- Your code should prompt the user to enter a number
- You can use the `raw_input` function to get user input
- It should print the numbers from **1** to the number the user entered

```
Please enter a number: 3
1
2
3
```

Function Created: `print_alphabet`

- Print the upper case alphabet and the lower case alphabet **horizontally** on two separate lines
- Use the `chr` function to help

```
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
```

Function Created: `beesnees`

- Write a loop that prints the numbers from 1 to 100 inclusive
- If the number is divisible by 3, print "**Bees**"
- If the number is divisible by 5, print "**Nees**"
- If the number is divisible by 3 and 5, print "**BEESNEES**"
- Otherwise print the **number**
- Print **horizontally** rather than vertically:
`1 2 Bees 4 Nees Bees 7 8 Bees Nees 11 Bees 13 14 BEESNEES`

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Function Created: **towercash**

The UT Tower is 94 m tall.

You place a dollar bill on the sidewalk by the UT Tower.

Each day after, you double the number of bills. How long does it take for the stack of bills to exceed the height of the UT Tower?

Assume a dollar bill is 0.11 mm thick.

- Calculate the timeframe for this scenario.
- Display a daily day and cash height listing

```
1      0.00011
2      0.00022
```

Function Created: **print_square_and_cube**

- Your code should prompt the user to enter a number between 1 and 9
- If the entered number is not in this range, print "**Sorry!**" and stop execution
- You can use the `raw_input` function to get user input
- You should print the numbers from **1** to the number the user entered as well as the square and cube of that number
- Try to make it right justified as shown (look into format strings and the `format` function in Python 2.7)
- The code was **run twice separately** to produce the output below

```
Please enter a number: 0
Sorry!
```

```
Please enter a number: 3
 1   1   1
 2   4   8
 3   9  27
```

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Function Created: `print_square_and_cube_loop`

- Your code should prompt the user to enter a number between 1 and 9
- If the user enters 0, print "**Stopping!**" and **stop execution**
- If the user enters numbers below 0 or above 9, print "**Sorry!**" but prompt them again to enter a number (hint: you can use a while loop for this)
- You can use the `raw_input` function to get user input
- If the user enters a valid number in our range, you should print the numbers from **1** to the number the user entered as well as the square and cube of that number
- Try to make it right justified as shown (look into format strings and the `format` function in Python 2.7)
- The code was **run once** to produce the output below

```
Please enter a number: 1
   1   1   1
Please enter a number: 2
   1   1   1
   2   4   8
Please enter a number: 11
Sorry!
Please enter a number: 0
Stopping!
```

More Practice

- Remember to use [Python Coding Bat](#) or [Learning Python the Hard Way](#) if you would like more practice with coding.
- I will post the solutions and another problem set in a week after everyone has had a chance to attempt these problems.
- If you have other recommendations for coding practice resources, feel free to post to our Piazza site.
- Have fun! 😊