

Create a new python file. Save it as problemSet2.py.

Answer ALL the following questions in this one python file. Do not forget to include comments at the top of the file, giving your name, date and name of the problem set.

For the multiple choice, or any question that is not code based, write your answers in the form of comments. For example, if you think the answer to the first question is 'register', write:

```
# Multi Choice Question 1: register
```

Section: Multiple Choice

1. A _____ is a name that references a value in the computer's memory
 - ☐ variable
 - ☐ register
 - ☐ RAM slot
 - ☐ byte
2. A string in Python must be enclosed in
 - ☐ parentheses
 - ☐ single-quotes
 - ☐ double-quotes
 - ☐ either single-quotes or double-quotes
3. Temporary storage in a computer is called
 - ☐ RAM
 - ☐ Secondary storage
 - ☐ the disk drive
 - ☐ the USB drive
4. The part of the computer that does all the work running programs is called
 - ☐ the CPU
 - ☐ RAM
 - ☐ software
 - ☐ main memory
5. Which of the following cause an error:
 - ☐ `x = 17`
 - ☐ `17 = x`
 - ☐ `x = 99999`
 - ☐ `x = '17'`

Section: Programming Exercise

For the following, think carefully about the TYPES of data you are using. What SHOULD each type of data be?

1. Write python code that prompts the user to enter their height in inches, and assigns that input to a variable called height. Print the contents of that variable.
2. Write a line of python that asks the user for their favorite color, and assigns it to a variable called color. Print the contents of that variable.
3. What does the following display (write the answer as a python comment):
 - `>>>a=5`
 - `>>>b=2`
 - `>>>c=3`
 - `>>>result=a+b*c`
 - `>>>print(result)`
 - `>>>a=5>>>b=2>>>c=3>>>result=a+b*c>>>print(result)`
 -
4. What would the following display (write the answer as a python comment):
 - `>>>num=99`
 - `>>>num=5`
 - `>>>print(num)`
 - `>>>num=99>>>num=5>>>print(num)`
 -
5. A company has determined that it's annual profit is typically 23 percent of total sales. Write some python code that will ask the user to enter the projected amount of total sales, and then displays the profit made from that amount. *Hint: Use the value 0.23 to represent 23 percent.*
6. One acre of land is equivalent to 43,560 square feet. Write code that asks the user to enter the total square feet in a piece of land, and calculates and displays the number of acres that is equivalent to.
7. A customer in a store is buying five items. Write code that asks for the price of each item, and displays after each entry the subtotal of the sale (i.e. the amount just entered plus the tax), the amount of sales tax on that item, and the total so far. Assume that sales tax is 7 percent.
8. Write code that converts a temperature in Celsius to Fahrenheit. The code should ask the user for a temperature in Celsius, then print the corresponding temperature in Fahrenheit. The formula for conversions is:
 - $F =$
 - 9
 - 5
 - $C + 32$
 - $F = 95C + 32$
9. Last month, Krista bought some shares in Acme Software, Inc. Here are the details of the purchase:

- The number of shares Krista bought was 2,000
- When Krista bought the shares, she paid \$40.00 per share
- Krista then paid her stockbroker a commission, that amounted to 3 percent of the amount she paid for the stock
- You should now know how much Krista has paid out in total
- Two weeks later, Krista sold the stock
- The number of shares she sold was 2,000
- She sold the stock for \$42.75 per share
- She paid her stockbroker another commission that amounted to 3 percent of the amount received for the stock.
- So Krista received money from the sale, and then had to pay her stockbroker
- Write code, using appropriately named variables, to display the following information:
 - The amount of money Krista paid for the stock
 - The amount of commission Krista paid when she BOUGHT the stock
 - The amount that Krista received when she sold the stock
 - The amount of commission Krista paid when she SOLD the stock
 - Display the amount of money Krista had left after selling the stock, and paying both sets of commission - when buying and when selling.
 - If the number is positive, Krista made a profit. Otherwise she lost money. You don't need to display this information.

For all python code, I expect to see:

1. Code listing (with comments)
2. Code that WORKS. When I download your file, I will run it. It should run free of ANY errors

Turn in: Electronic copy of your python file to Nexus. You can directly upload the .py file.