3. Personal Information

Write a program that displays the following information, each on a separate line:

* Your name
* Your address, with city, state, and ZIP
* Your telephone number
* Your college major

Although these items should be displayed on separate output lines, use only a single println statement in your program.

CODE:

/\*Write a program that displays the following information, each on a separate line:  
• Your name  
• Your address, with city, state, and ZIP  
• Your telephone number  
• Your college major  
Although these items should be displayed on separate output lines, use only a single println statement in your program.  
\*/  
  
public class Personal\_Information  
  
{  
  
public static void main(String args[])  
  
{  
  
 //NO DECLARATION SECTION FOR VARIABLES NECESSARY  
   
  
System.out.println ("Michaela Gormish\n" +  
 "123 Appleview lane Sunnyville, PA 12345\n" +  
 "(123) 456-7890\n" +  
 "Spanish and Anthropology\n");

7. Sales Tax

Write a program that will ask the user to enter the amount of a purchase. The program should then compute the state and county sales tax. Assume the state sales tax is 4 percent and the county sales tax is 2 percent. The program should display the amount of the purchase, the state sales tax, the county sales tax, the total sales tax, and the total of the sale (which is the sum of the amount of purchase plus the total sales tax).

*Hint: Use the value 0.02 to represent 2 percent, and 0.04 to represent 4 percent.*

import java.util.Scanner;  
   
 public class Sales\_Tax  
 {  
 public static void main(String[] args)  
{  
   
 Scanner kb = new Scanner (System.in);  
 double state\_sales\_tax = .04, county\_sales\_tax = .02;  
   
  
 double purchase\_amount = kb.nextDouble();  
   
 double total\_state\_sales\_tax = purchase\_amount\*state\_sales\_tax;  
  
 double total\_county\_sales\_tax = purchase\_amount\*county\_sales\_tax;  
 double total\_sales\_tax = total\_state\_sales\_tax +  
 total\_county\_sales\_tax;  
 double total\_bill = purchase\_amount + total\_sales\_tax;  
 System.out.println("Please enter total purchase amount:");  
 System.out.println("The amount of purchase is:" + purchase\_amount);  
 System.out.println("The state sales tax is:" + total\_state\_sales\_tax);  
 System.out.println("The county sales tax is:" + total\_county\_sales\_tax);  
 System.out.println("The total sales tax is:" + total\_sales\_tax);  
 System.out.println("The total bill is:" + total\_bill);  
   
 }  
36   
37 }  
38

19. Stock Transaction Program

*Last month Joe purchased some stock in Acme Software, Inc. Here are the details of the purchase:*

* The number of shares that Joe purchased was 1,000.
* When Joe purchased the stock, he paid $32.87 per share.
* Joe paid his stockbroker a commission that amounted to 2% of the amount he paid for the stock.

Two weeks later Joe sold the stock. Here are the details of the sale:

* The number of shares that Joe sold was 1,000.
* He sold the stock for $33.92 per share.
* He paid his stockbroker another commission that amounted to 2% of the amount he received for the stock.

Write a program that displays the following information:

* The amount of money Joe paid for the stock.
* The amount of commission Joe paid his broker when he bought the stock.
* The amount that Joe sold the stock for.
* The amount of commission Joe paid his broker when he sold the stock.
* Display the amount of profit that Joe made after selling his stock and paying the two commissions to his broker. (If the amount of profit that your program displays is a negative number, then Joe lost money on the transaction.)

11 import java.util.Scanner;  
12   
13 public class Stock\_Transaction  
14   
15 {  
16   
17 public static void main(String[] args)  
18   
19 {  
20   
21 double Total Shares Purchased = 1000;  
22 double Price per Share = 32.87;  
23 double Total Shares Cost = Total Shares Purchased \*  
24 Price per Share;  
25 int First Stockbroker Commission Percentage = 0.02;  
26 double First Stockbroker Commission Paid = Total Shares Cost \* First Stockbroker Commission Percentage;  
27   
28 double Shares Sold = 1000;  
29 double Income per Share = 33.92;  
30 double Total Income = Shares Sold \* Income per Share;   
31 int Second Stockbroker Commission Percentage = 0.02;  
32 double Second Stockbroker Commission Paid = Total Income \* Second Stockbroker Commission Percentage;  
33 double Total Stockbroker Commissions Paid = First Stockbroker Commission Paid +   
34 Second Stockbroker Commission Paid;  
35 double Total Losses = Total Shares Cost + Total Stockbroker Commissions Paid;  
36 double Final Transaction Total = Total Income - Total Losses;   
37   
38 system.out.println("Total Cost of Stock:" + Total Shares Cost);  
39 system.out.println("Total Commission Payment After Stock Purchase:" + First Stockbroker Commission Paid);  
40 system.out.println("Total Stock Sales:" + Total Income);  
41 system.out.println("Total Commission Paid After Sale:" + Second Stockbroker Commission Paid);  
42 system.out.println("Total Profit:" + Total Transaction Total);  
43   
44 }  
45   
46 }

21. Compound Interest

When a bank account pays compound interest, it pays interest not only on the principal amount that was deposited into the account, but also on the interest that has accumulated over time. Suppose you want to deposit some money into a savings account, and let the account earn compound interest for a certain number of years. The formula for calculating the balance of the account after a specified number of years is:

*A*=*P*(1+*rn*)*nt*A=P(1+rn)nt

The terms in the formula are:

* *A* is the amount of money in the account after the specified number of years.  
  *P* is the principal amount that was originally deposited into the account.  
  *r* is the annual interest rate.  
  *n* is the number of times per year that the interest is compounded.  
  *t* is the specified number of years.

Write a program that makes the calculation for you. The program should ask the user to input the following:

* The amount of principal originally deposited into the account
* The annual interest rate paid by the account
* The number of times per year that the interest is compounded (For example, if interest is compounded monthly, enter 12. If interest is compounded quarterly, enter 4.)
* The number of years the account will be left to earn interest

Once the input data has been entered, the program should calculate and display the amount of money that will be in the account after the specified number of years.