

BRONX COMMUNITY COLLEGE
of the City University of New York
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

CSI W99 Java Workshop
Summer 2017

Exercises for Day 2
July 6, 2017

Exercises for Day 2

Instructions

For any programming problem, use the same programming style as used in today's lesson. Create a project in your Eclipse Workspace, and create a class with a `main` method that performs the task. Both the project and the class (and the file defining the class) should have the same name—it should be named for the task it performs.

1. Write an application that checks if the entered symbol is a letter from alphabet (either lower case or upper case).
(Hint: You can use cast operator `(int)`. For example, `(int) 'a'` will produce integer value 97.)
2. Identify and correct syntax errors in the following sets of code:

a)

```
int x = 10;
while (x != 1)
    x -= 2;
System.out.printf(x = %d,x);
```

Is there anything wrong with this code?

b)

```
if (a==19);
    System.out.print(A)
else
    System.out.print(B)
```

c)

```
if (f = 4)
{
    System.out.print(4-wheels car);
    f = 5 } else
    System.out.print(N/A);
```

3. What does the following code display?

```
public class Calc
{
    public static void main(String[] args)
    {
        int d = 0;
        int x = 0;

        while(d <= 1000)
        {
            x += Math.pow(-1,d); // Math.pow(a,b) returns ab
            d++;
        }

        System.out.printf("We got: %d", x);
    }
}
```

4. What does the following program print?

```
public class IT
{
    public static void main(String[] args)
    {
        int a = 12;
        int s = 0;

        while(a > 0)
        {
            int c = 2*a;
            if ( c < 10 )
            {
                System.out.printf("We have: %d",c);
                s += c;
            }
            --a;
        }
    }
}
```

5. Write a program that asks the user to input a number (not necessary integer) between 10 and 15, including. For any input, if the value entered is either less than 10 or greater than 15, keep looping until the user enters a correct value.

6. (Salary calculator) Write a Java application that calculates the gross pay for each of the employees following these rules: The company pays straight time for the first 35 hours worked by each employee and time and a half for all hours worked in excess of 35.

Here is the list of employees:

Your program should prompt for this information for each employee (one-by-one), then determine and display the employees gross pay.

	Hours worked	Hourly rate
John Smith	50	25
Fred Samuel	26	30
Anabel Ross	63	18
Miriam Coleman	43	22
Susan Ford	35	38
Jane Doe	41	17
Paul Sanders	52	20