

South Louisiana Community College
ASDV 1220, Programming Fundamentals
Programming Examination I, 2018/09/20

Create a project called Exam1LastName where LastName is your last name.

1. Upload the zip of your finished project
2. For each problem, upload its html outside the zip WITHOUT LINE NUMBERS.

Problem 1 (4 points) Create a class MySquareRoot. Write code to prompt the user to enter a positive number and after you read the number, print its square root.

Sample runs: Enter a positive number to compute its square root: 4 The square root of 4.0 is 2.0

Enter a positive number to compute its square root: 2.3 The square root of 2.3 is 1.51657508881031

Enter a positive number to compute its square root: -4 The square root of a negative doesn't exist

Problem 2 (3 points) Create a class UseOrAndXor. Write code that prompts the user to enter an integer and determines whether it is divisible by 5 and 6, whether it is divisible by 5 or 6, and whether it is divisible by 5 or 6, but not both. Hint: After you read the integer, only 3 lines of code are needed, with each line of code being a conditional statement inside a System.out.println.

Sample run: Enter an integer: 10 Is 10 divisible by 5 and 6? false Is 10 divisible by 5 or 6? true Is 10 divisible by 5 or 6, but not both? True

Problem 3 (2 points)

Create a class RandomCharacter. Write code that prints a random uppercase letter using the Math.random() method. Hint: Only 1 line of code inside the System.out.println is needed. Your 1 line of code should generate any letter from 'A' to 'Z'. Typecasting is needed in the end to convert the generated random number into a character.

Problem 4 (1 point) Create a class `AscendingOrderOf3`. Write code that prompts the user to enter 3 integers and prints the 3 integers in ascending order. For example if the user enters 3, 1, 2 your program should print 1, 2, 3. If the user enters 3, 2, 3 your program should print 2, 3, 3. And so on.

For this problem there is no partial credit. Your program must work correctly for all of the 10 inputs below. If it doesn't work for 1 or 2 cases use the Debugger and fix the bug.

| x | y | z |
|----------|----------|----------|
| 1 | 2 | 3 |
| 1 | 3 | 2 |
| 2 | 1 | 3 |
| 2 | 3 | 1 |
| 3 | 2 | 1 |
| 3 | 1 | 2 |
| 1 | 1 | 2 |
| 1 | 2 | 1 |
| 2 | 1 | 1 |
| 1 | 1 | 1 |