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## Coding

### Server:

```
import java.io.*;
import java.net.*;
import java.util.Scanner;

public class Server {
    public static void main(String[] args) throws IOException
    {
        char operator;
        float num1, num2, result;
        ServerSocket s1 = new ServerSocket(8080);
        Socket ss = s1.accept();

        System.out.println("Client connected");

        InputStreamReader in = new
        InputStreamReader(ss.getInputStream());
        BufferedReader bf = new BufferedReader(in);

        String str = bf.readLine();
        System.out.println("Client : " + str);
```

```
PrintWriter pr = new PrintWriter(ss.getOutputStream());
pr.println("Hello, You can connected :) ");
pr.flush();

Scanner inp = new Scanner(ss.getInputStream());
operator = inp.next().charAt(0);
num1 = inp.nextFloat();
num2 = inp.nextFloat();

PrintStream p = new PrintStream(ss.getOutputStream());

switch (operator) {

    // performs addition between numbers
    case '+':
        result = num1 + num2;
        System.out.print( "Calculated for clients: " + num1
+ " + " + num2 + " = " + result );
        p.println(result);
        break;

    // performs subtraction between numbers
    case '-':
        result = num1 - num2;
        System.out.print( "Calculated for clients: " + num1
+ " - " + num2 + " = " + result );
        p.println(result);
        break;
```

```

        // performs multiplication between numbers
        case '*':
            result = num1 * num2;

            System.out.print( "Calculated for clients: " + num1
+ " * " + num2 + " = " + result );

            p.println(result);

            break;

        // performs division between numbers
        case '/':
            result = num1 / num2;

            System.out.print( "Calculated for clients: " + num1
+ " / " + num2 + " = " + result );

            p.println(result);

            break;

        default:
            System.out.println("Invalid operator!");

            break;
    }

    s1.close();

}
}

```

## **Client:**

```
import java.io.*;
import java.net.*;
import java.util.Scanner;

public class Client {

    public static void main(String[] args) throws
    UnknownHostException, IOException
    {

        char operator;
        float temp, num1, num2;
        Scanner inp = new Scanner(System.in);
        Socket s = new Socket("192.168.50.42",8080);

        PrintWriter pr = new
        PrintWriter(s.getOutputStream());

        pr.println("Hello, I can connected!!");
        pr.flush();

        InputStreamReader in = new
        InputStreamReader(s.getInputStream());

        BufferedReader bf = new BufferedReader(in);

        String str = bf.readLine();
        System.out.println("Server : " + str);

        Scanner sc1 = new Scanner(s.getInputStream());

        PrintStream p = new
        PrintStream(s.getOutputStream());
```

```

        System.out.print("Choose an operator: +, -, *, or /:
");

        operator = inp.next().charAt(0);
        p.println(operator);
        System.out.print("Enter first number: ");
        num1 = inp.nextFloat();
        p.println(num1);
        System.out.print("Enter second number: ");
        num2 = inp.nextFloat();
        p.println(num2);
        System.out.print("Result: " + num1 + " " + operator
+ " " + num2 + " = ");
        temp = sc1.nextFloat();
        System.out.println(temp);

        inp.close();
        s.close();
    }
}

```

## Output

### Server:

```
Command Prompt

C:\Users\MooK\Pictures\Network - Socket>java Server
Client connected
Client : Hello, I can connected!!
Calculated for clients: 27.9 + 49.7 = 77.6

C:\Users\MooK\Pictures\Network - Socket>java Server
Client connected
Client : Hello, I can connected!!
Calculated for clients: 27.9 - 49.7 = -21.800001

C:\Users\MooK\Pictures\Network - Socket>java Server
Client connected
Client : Hello, I can connected!!
Calculated for clients: 27.9 * 49.7 = 1386.63

C:\Users\MooK\Pictures\Network - Socket>java Server
Client connected
Client : Hello, I can connected!!
Calculated for clients: 27.9 / 49.7 = 0.56136817
```

### Client:

```
Command Prompt

C:\Users\MooK\Pictures\Network - Socket>java Client
Server : Hello, You can connected :)
Choose an operator: +, -, *, or /: +
Enter first number: 27.9
Enter second number: 49.7
Result: 27.9 + 49.7 = 77.6

C:\Users\MooK\Pictures\Network - Socket>java Client
Server : Hello, You can connected :)
Choose an operator: +, -, *, or /: -
Enter first number: 27.9
Enter second number: 49.7
Result: 27.9 - 49.7 = -21.800001

C:\Users\MooK\Pictures\Network - Socket>java Client
Server : Hello, You can connected :)
Choose an operator: +, -, *, or /: *
Enter first number: 27.9
Enter second number: 49.7
Result: 27.9 * 49.7 = 1386.63

C:\Users\MooK\Pictures\Network - Socket>java Client
Server : Hello, You can connected :)
Choose an operator: +, -, *, or /: /
Enter first number: 27.9
Enter second number: 49.7
Result: 27.9 / 49.7 = 0.56136817
```

