SRI RAMACHANDRA
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Category - I Deemed to be University) Porur, Chennai
SRI RAMACHANDRA ENGINEERING AND TECHNOLOGY

CSE 280 ADVANCE JAVA

STUDENT WORK BOOK

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Academic Year	**:**	2020-2021

Date: 19-11-2020

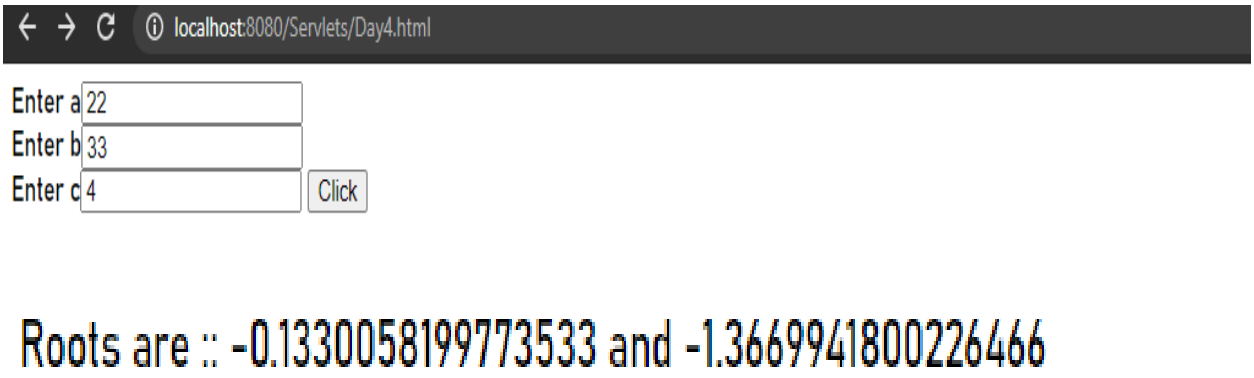
Question 1:

Write a program to solve quadratic equation

Program:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;
public class Day4 extends HttpServlet {
    public void init() throws ServletException {
    }
    public void doGet(HttpServletRequest request, HttpServletResponse
response)
       throws ServletException, IOException {
         double secondRoot = 0, firstRoot = 0;
         int a=Integer.parseInt(request.getParameter("p1"));
       int b=Integer.parseInt(request.getParameter("p2"));
       int c=Integer.parseInt(request.getParameter("p3"));
       double determinant = (b*b)-(4*a*c);
            double sqrt = Math.sqrt(determinant);
       response.setContentType("text/html");
            PrintWriter out = response.getWriter();
        if(determinant>0){
        firstRoot = (-b + sqrt)/(2*a);
        secondRoot = (-b - sqrt)/(2*a);
        out.println("Roots are :: "+ firstRoot +" and "+secondRoot);
        }else if(determinant == 0){
        out.println("Root is :: "+(-b + sqrt)/(2*a));
        }}
        public void destroy() {     } }
```

Output:



Date: 19-11-2020

Question 2:

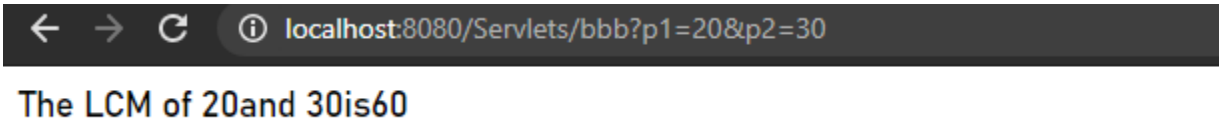
Find the LCM of two numbers

Program:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class D2 extends HttpServlet {

    public void init() throws ServletException {
    }

    public void doGet(HttpServletRequest request, HttpServletResponse
response)
       throws ServletException, IOException {
       int a=Integer.parseInt(request.getParameter("p1"));
       int b=Integer.parseInt(request.getParameter("p2"));
       int lcm;
       response.setContentType("text/html");
```

```
            PrintWriter out = response.getWriter();
    lcm = (a > b) ? a : b;

    // Always true
    while(true) {
      if( lcm % a == 0 && lcm % b == 0 ) {
        out.println("<html><body>The LCM of " +a+ "and "+b + "is" +lcm+
"<br></body></html>");
        break;
      }
      ++lcm;
    }
     }
     public void destroy() {
     }
  }
```

Output:



Date: 19-11-2020

Question 3:

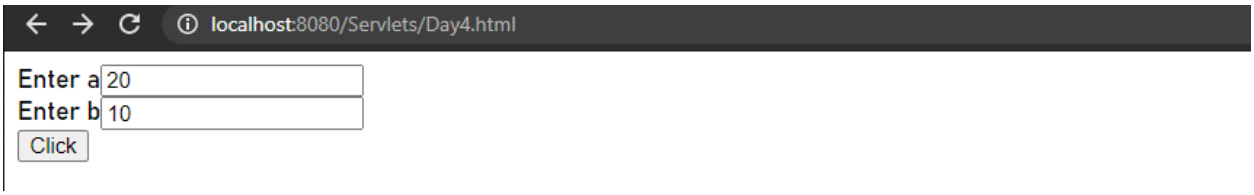
Find the HCF of two numbers

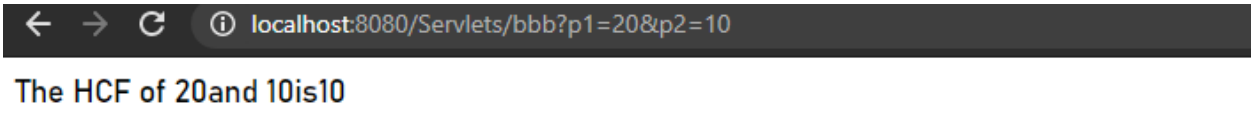
Program:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class D3 extends HttpServlet {

    public void init() throws ServletException {
    }

    public void doGet(HttpServletRequest request, HttpServletResponse
response)
       throws ServletException, IOException {
       int n1=Integer.parseInt(request.getParameter("p1"));
       int n2=Integer.parseInt(request.getParameter("p2"));
       response.setContentType("text/html");
            PrintWriter out = response.getWriter();
   int gcd=1;
  for(int i = 1; i <= n1 && i <= n2; ++i)
       {
          // Checks if i is factor of both integers
          if(n1 % i==0 && n2 % i==0)
             gcd = i;
       }

       out.println("<html><body>The HCF of " +n1+ "and "+n2 + "is" +gcd+
"<br></body></html>");
```

```
    }
     public void destroy() {
     }
  }
```

Output:





Date: 19-11-2020

Question 4:

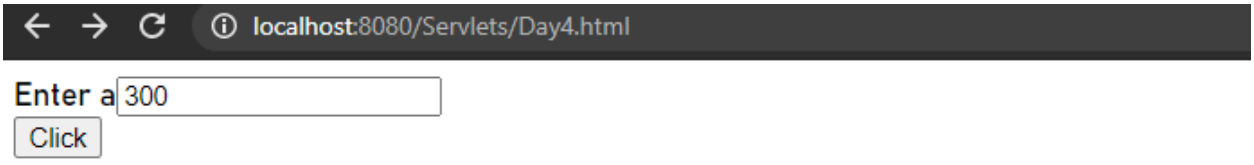
Find the sum of natural numbers in a given interval

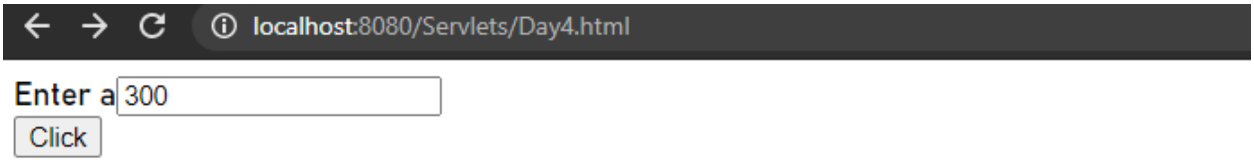
Program:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class D4 extends HttpServlet {

    public void init() throws ServletException {
    }
```

```
    public void doGet(HttpServletRequest request, HttpServletResponse
response)
        throws ServletException, IOException {
        int a=Integer.parseInt(request.getParameter("p1"));
        response.setContentType("text/html");
             PrintWriter out = response.getWriter();

int sum=0;

for(int i = 1; i <= a; ++i)
        {
           sum += i;
        }
  out.println("<html><body>sum is " +sum+ "</body></html>");

   }
    public void destroy() {
    }
 }
```

Output:





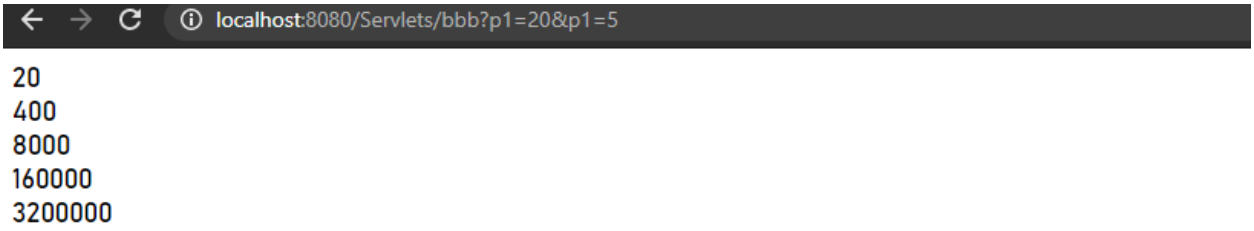
Date: 19-11-2020

Question 5:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class D6 extends HttpServlet {

    public void init() throws ServletException {
    }

    public void doGet(HttpServletRequest request, HttpServletResponse
response)
       throws ServletException, IOException {
       int a=Integer.parseInt(request.getParameter("p1"));
  int expo=Integer.parseInt(request.getParameter("p2"));
  long result = 1;

       response.setContentType("text/html");
            PrintWriter out = response.getWriter();

for(int i = 1; i <= expo; ++i)
       {
          result *= a;
   out.println( +result+ "<br></body></html>");
       }
   }
    public void destroy() {
    }
 }
```

Output:


localhost:8080/Servlets/Day4.html
Enter base for power series : 20
Enter Exponent for power series : 5
Click


localhost:8080/Servlets/bbb?p1=20&p1=5
20
400
8000
160000
3200000