

Lab 02 – Intro to Java

Task 01:

Code:

```
package Tasks;
import java.util.Scanner;

public class task01 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter height of rectangle: ");
        float height = sc.nextFloat();
        System.out.print("Enter width of rectangle: ");
        float width = sc.nextFloat();

        float area = (height*width);

        System.out.println("Area of rectangle is: " + area);

        sc.close();
    }
}
```

Output:

```
"C:\Program Files\Java\jdk-24\bin\java.exe" "-javaagent:C:\Program Files\Jet
Enter height of rectangle: 65
Enter width of rectangle: 24
Area of rectangle is: 1560.0

Process finished with exit code 0
|
```

Task 02:**Code:**

```
package Tasks;

public class task02 {
    public static void main(String[] args) {

        int x = 2, y = 20, z = 13;

        System.out.println("2x^2 + y^2 = " + (2*(x*x) + (y*y)));
        System.out.println("3x + y - 3z^2 = " + (3*x + y + 3*(z*z)));
        System.out.println("2x - 2y + 5z^2 = " + (2*x - 2*y + 5*(z*z)));

    }
}
```

Output:

```
"C:\Program Files\Java\jdk-24\bin\java.exe" "-javaagent:C:\Program Files\Jet
2x^2 + y^2 = 408
3x + y - 3z^2 = 533
2x - 2y + 5z^2 = 809

Process finished with exit code 0
```

Task 03:**Code:**

```
package Tasks;
import java.util.Scanner;

public class task03 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter first integer: ");
        int a = sc.nextInt();
        System.out.print("Enter second integer: ");
        int b = sc.nextInt();

        System.out.println();
        System.out.println("Sum is: " + (a+b));
        System.out.println("Product is: " + (a*b));
        System.out.println("Difference is: " + (a-b));

        sc.close();
    }
}
```

Output:

```
"C:\Program Files\Java\jdk-24\bin\java.exe" "-javaagent:C:\Program Files\Jet
Enter first integer: 6
Enter second integer: 3

Sum is: 9
Product is: 18
Difference is: 3

Process finished with exit code 0
|
```

Task 04:**Code:**

```
package Tasks;
import java.util.Scanner;

public class task04 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter temperature in celsius: ");
        double celsius = sc.nextDouble();

        double fahrenheit = (celsius*(9/5.00) + 32);

        System.out.println(celsius + "in fahrenheit is: " + fahrenheit);

        sc.close();
    }
}
```

Output:

```
"C:\Program Files\Java\jdk-24\bin\java.exe" "-javaagent:C:\Program Files\Jet
Enter temperature in celsius: 32
32.0in fahrenheit is: 89.6

Process finished with exit code 0
|
```

Task 05:**Code:**

```
package Tasks;
import java.util.Scanner;

public class task05 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter diameter of 1st pulley: ");
        float d1 = sc.nextFloat();
        System.out.print("Enter diameter of 2nd pulley: ");
        float d2 = sc.nextFloat();
        System.out.print("Enter RPM (rotation per minute) of 1st pulley: ");
        float rpm1 = sc.nextFloat();

        float rpm2 = (d1/d2)*rpm1;

        System.out.println("RPM of 2nd pulley is: " + rpm2);
        sc.close();
    }
}
```

Output:

```
"C:\Program Files\Java\jdk-24\bin\java.exe" "-javaagent:C:\Program Files\Jet
Enter diameter of 1st pulley: 67
Enter diameter of 2nd pulley: 36
Enter RPM (rotation per minute) of 1st pulley: 76
RPM of 2nd pulley is: 141.44444

Process finished with exit code 0
|
```