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Mr. Anthony

CSP26A TTH 10:30

Assignment #1

02/10/2020

Calculate Area of Triangle

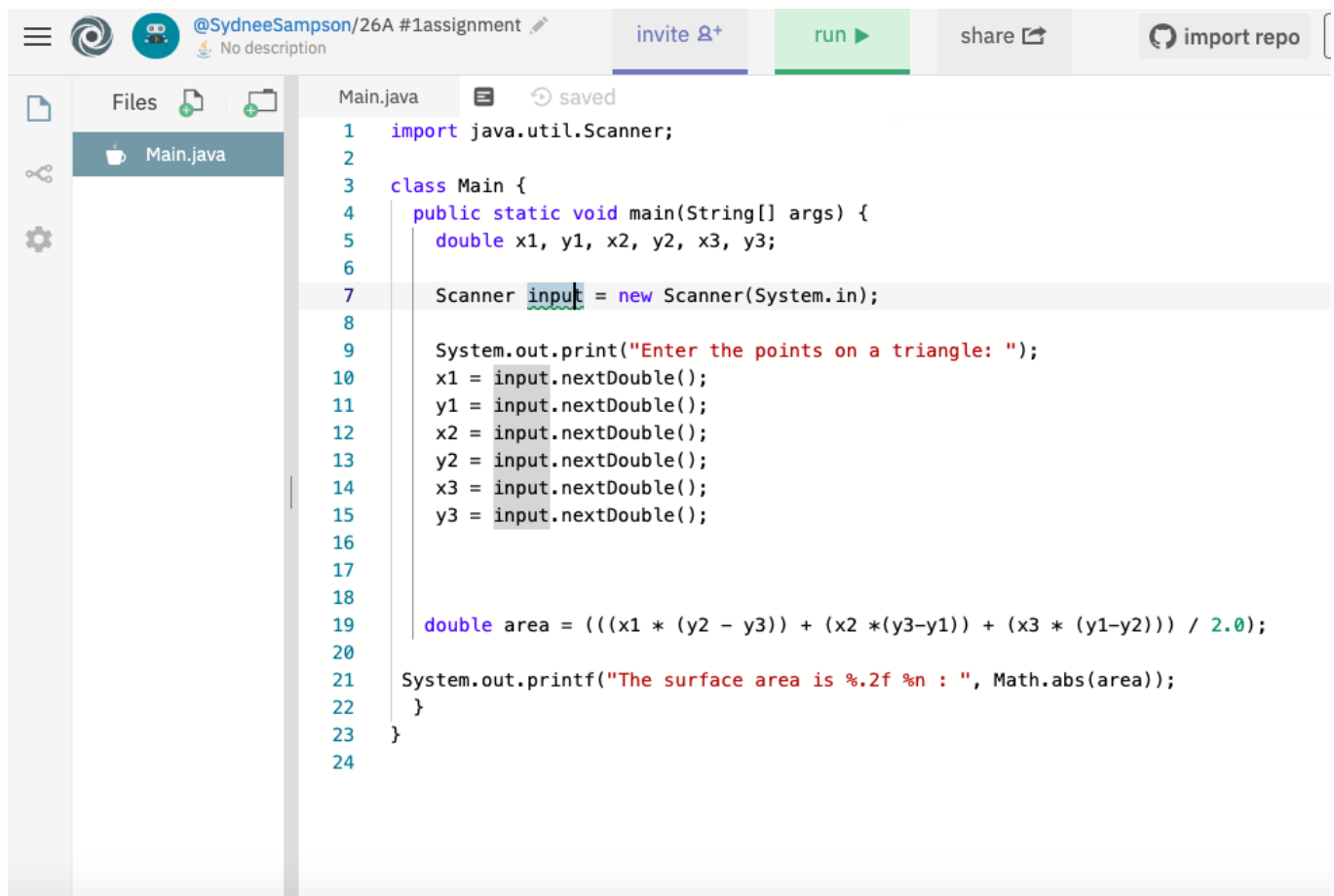
Prompt 'Enter x1, y1, x2, y2, x3, y3:'

Get x1, y1, x2, y2, x3, y3

Calculate area

Area = $((x1 * (y2 - y3)) + (x2 * (y3 - y1)) + (x3 * (y1 - y2))) / 2.0$

Display area



The screenshot shows a Java IDE with a file explorer on the left containing 'Main.java'. The main editor displays the following code:

```
1 import java.util.Scanner;
2
3 class Main {
4     public static void main(String[] args) {
5         double x1, y1, x2, y2, x3, y3;
6
7         Scanner input = new Scanner(System.in);
8
9         System.out.print("Enter the points on a triangle: ");
10        x1 = input.nextDouble();
11        y1 = input.nextDouble();
12        x2 = input.nextDouble();
13        y2 = input.nextDouble();
14        x3 = input.nextDouble();
15        y3 = input.nextDouble();
16
17
18
19        double area = (((x1 * (y2 - y3)) + (x2 * (y3 - y1)) + (x3 * (y1 - y2))) / 2.0);
20
21        System.out.printf("The surface area is %.2f \n : ", Math.abs(area));
22    }
23 }
24
```

The screenshot shows a Replit IDE interface. At the top, the user is identified as @SydneySampson, working on a project named '26A #1assignment'. The interface includes buttons for 'invite', 'run', 'share', and 'import repo'. On the left, a file explorer shows a file named 'Main.java'. The main editor area displays the following code and output:

```
OpenJDK Runtime Environment (build 10.0.2+13-Ubuntu-1ubuntu0.18.04.4)
> javac -classpath ./run_dir/junit-4.12.jar -d . Main.java
> java -classpath ./run_dir/junit-4.12.jar Main
Enter the points on a triangle: 1.5 -3.4
4.6 5 9.5 -3.4
The surface area is 33.60
> :
> []
```

Calculate Future Investment Value

Prompt "Enter the Investment amount:"

Get investmentAmount

Prompt "Enter annual interest rate in percentage:"

Get annualInterestRate

Prompt "Enter number of years:"

Get numberOfYears

Calculate monthlyInterestRate

$\text{monthlyInterestRate} = \text{annualInterestRate} / 1200;$

Calculate future investment value

$\text{futureInvestmentValue} = \text{investmentAmount} * \text{Math.pow}((1 + \text{monthlyInterestRate}), (\text{numberOfYears} * 12))$

Display futureInvestmentValue



Main.java

saved

```
1 import java.util.Scanner;
2 class Main {
3     public static void main(String[] args) {
4         double investmentAmount, monthlyInterestRate, numberOfYears, annualInterestRate, futureInvestmentValue;
5
6         Scanner input = new Scanner(System.in);
7
8         System.out.print("Enter the investment amount: ");
9         investmentAmount = input.nextDouble();
10        System.out.print("Enter the annual interest rate in percentage: ");
11        annualInterestRate = input.nextDouble();
12        System.out.print("Enter the number of years: ");
13        numberOfYears = input.nextDouble();
14
15        monthlyInterestRate = annualInterestRate / 1200;
16        futureInvestmentValue = investmentAmount * Math.pow((1 + monthlyInterestRate), (numberOfYears * 12));
17
18        System.out.printf("The future investment value is: $ %.2f %n ", futureInvestmentValue);
19    }
20 }
```

n.java

https://26A-12assignment.sydneyesampson.repl.run

```
OpenJDK R
untime En
vironment
(build 1
0.0.2+13-
Ubuntu-1u
buntu0.18
.04.4)
> javac -
classpath
./run_d
ir/junit-
4.12.jar
-d . Main
.java
> java -classpath ./run_dir/junit-4.12.jar Main
Enter the investment amount: 1000.56
Enter the annual interest rate in percentage: 4.25
Enter the number of years: 1
The future investment value is: $ 1043.92
> []
```