

Q2

```

import java.util.Scanner;
import java.lang.Math;

class NoTriangleException extends Exception {
    NoTriangleException(String s) {
        super(s);
    }
}

```

```

}

class Triangle {
    float a, b, c;
    double area;
    double s;
    float perime;

    Triangle() {
        a = 0;
        b = 0;
        c = 0;
    }
}

```

```

Triangle (float x, float y, float z) {
    a = x;
    b = y;
    c = z;
}

```

```

void Perimeter (float x, float y, float z) {
    a = x;
    b = y;
    c = z;
}

```

```

perime = a + b + c;

```

```

System.out.println("The perimeter of the triangle is " + perime);

```

$s = \text{perimeter} / 2$; }

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```
void area(float x, float y, float z) {
```

```
    a = x;
```

```
    b = y;
```

```
    c = z;
```

```
    area = Math.sqrt(s * (s - a) * (s - b) * (s - c));
```

```
    System.out.println("The area of the triangle is" + area); }
```

```
}
```

```
public class Main {
```

```
    public static void main (String args[]) throws  
        NoTriangleException
```

```
    {  
        float s1, s2, s3;
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter the values of  
        three sides of Triangle (s1, s2, s3);
```

```
        try {
```

```
            if ((s1 + s2 < s3) || (s2 + s3 < s1) ||  
                (s1 + s3 < s2))
```

```
                throw new NoTriangleException("Triangle  
                is not valid");
```

```
            t1.perimeter(s1, s2, s3);
```

```
            t1.area(s1, s2, s3);
```

```
        } catch (NoTriangleException m) { }
```

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System.out.println("Exception occurred: "+m);

}
}
}

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