**INFT-1207**

**SALVI PATEL**

**SOHAM PATEL**

**GROUP 11**

**LAB 3**

**Test Case - Circle**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case No.** | **Input Size** | **Set of Integers** | **Expected Output** | **Actual Output** | **Match** |
| 1. | 1 | 5 | 78.54 | 78.54 | Yes |
|  | 1 | -5 | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Yes |
|  | 1 | -0 | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Yes |
| 2. | 1 | 1 | 3.14 | 3.14 | Yes |
|  | 1 | 1.1 | 3.14 | 3.14 | Yes |
|  | 1 | 0 | 0 | 0 | Yes |
| 3. | 1 | abcd | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Yes |
|  | 1 | A1 | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Yes |
|  | 1 | -abcd | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Error: Radius must be a non-negative number and should be greater than or equals to 0 | Yes |

**Test Case - Trapezium**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case No.** | **Input Size** | **Set of Integers** | **Expected Output** | **Actual Output** | **Match** |
| 1. | 1 | 3 | 9 | 9 | Yes |
|  | 1 | -3 | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | -0 | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Yes |
| 2. | 1 | 10 | 100 | 100 | Yes |
|  | 1 | 10.5 | 110.25 | 110.25 | Yes |
|  | 1 | 0 | 0 | 0 | Yes |
| 3. | 1 | xyz | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | 2a | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | 0 + a | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Error: Base and height must be non-negative numbers and should be greater than or equals to 0 | Yes |

**Test Case - Ellipse**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case No.** | **Input Size** | **Set of Integers** | **Expected Output** | **Actual Output** | **Match** |
| 1. | 1 | 2 | 12.57 | 12.57 | Yes |
|  | 1 | -2 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | -0 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Yes |
| 2. | 1 | 20 | 1256 | 1256 | Yes |
|  | 1 | 1.23 | 4.743 | 4.743 | Yes |
|  | 1 | 0 | 0 | 0 | Yes |
| 3. | 1 | ab + cd | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | A1 – B1 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | -4.23 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Error: Every semi-major and semi-minor axis must be non-negative numbers and should be greater than or equals to 0 | Yes |

**Test Case - Rhombus**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case No.** | **Input Size** | **Set of Integers** | **Expected Output** | **Actual Output** | **Match** |
| 1. | 1 | 1 | 0.5 | 0.5 | Yes |
|  | 1 | -2 | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | -0.32 | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Yes |
| 2. | 1 | 7 | 24.5 | 24.5 | Yes |
|  | 1 | 3.12 | 4.86 | 4.86 | Yes |
|  | 1 | 0 | 0 | 0 | Yes |
| 3. | 1 | 2ab + 3cd | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | -5ab | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Yes |
|  | 1 | -3.45x | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Error: Both diagonals must be non-negative numbers and should be greater than or equals to 0 | Yes |