

1.1.1. Area of Circle

Write a Python program that calculates the area of a circle when the radius is provided by the user. Use $\pi = 3.14$ and display the area.

Input Format:

- A single line containing a floating-point number representing the radius.

Output Format:

- Print the computed area of the circle formatted to 4 decimal places.

Sample Test Cases

circlearea...

```
1
2 r=float(input())
3 a=3.14*r*r
4 print(f"{a:.4f}")
```

Average time
0.004 s
4.50 ms

Maximum time
0.010 s
10.00 ms

2 out of 2 shown test case(s) passed
2 out of 2 hidden test case(s) passed

Test Case 1 4 ms

Expected output
3.36
35.4493

Actual output
3.36
35.4493

Test case 2 10 ms

Terminal

Test cases

1.1.2. Area of Rectangle

Write a Python program to calculate the area of a rectangle given its length and width.

Formula:
Area of Rectangle = Length × Width

Input Format:

- First line contains a float value representing the length of the rectangle
- Second line contains a float value representing the width of the rectangle

Output Format:

- Print the area of the rectangle as a float value formatted to 2 decimal places.

Sample Test Cases

areaOfRe...

```
1 l=float(input())
2 w=float(input())
3 a=l*w
4 print(f"{a:.2f}")
```

Average time
0.004 s
3.80 ms

Maximum time
0.006 s
6.00 ms

5 out of 5 shown test case(s) passed
5 out of 5 hidden test case(s) passed

Test case 1 5 ms

Expected output
18.5
5.2
54.68

Actual output
18.5
5.2
54.68

Test case 2 3 ms

TerminalTest cases

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1.1.3. Calculate Area of the Square

Write a Python program that prompts the user to enter the *side_length* of a square and computes the area of the square.

Formula:

- Area = side_length^2

Input Format:

- The input is a positive integer value that represents the *side_length* of the square.

Output Format:

- The output is a positive integer value that represents the area of the square.

Sample Test Cases

AreaSqua...

```
1 side_length = int(input())
2 area = side_length ** 2
3 print(area)
4
5
6
```

Average time0.002 s2.25 msMaximum time0.003 s3.00 ms

2 out of 2 shown test case(s) passed2 out of 2 hidden test case(s) passed

Test case 13 ms

Expected output5

Actual output5

25

Test case 22 ms

Terminal

Test cases

1.1.4. Area of Triangle 98.44

Write a Python program that prompts the user to enter the triangle's base and height and computes the triangle's area.

Formula: $Area\ of\ Triangle = 0.5 \times base \times height$.

Input Format:

- The first line of input is the float value that represents the base of the triangle.
- The second line of input is the float value that represents the height of the triangle.

Output Format:

- The output is the floating point value that represents the area of a triangle, formatted to two decimals.

Sample Test Cases

triangleA...

1 base = float(input())
2 height = float(input())
3 area = 0.5 * base * height
4 print(f"{area:.2f}")

Average time: 0.003 s (3.25 ms) | Maximum time: 0.005 s (5.00 ms)

2 out of 2 shown test case(s) passed
2 out of 2 hidden test case(s) passed

Test case 1 5 ms
Expected output: 6.54, 1.23, 4.02 | Actual output: 6.54, 1.23, 4.02

Test case 2 2 ms

Terminal | Test cases

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1.1.5. Student Pass or Fail Status

Write a Python program to determine whether a student passed the exam or not based on their marks.

Pass/Fail Criteria:

- A student passes if marks ≥ 40
- A student fails if marks < 40

Input Format:

- Single line contains an integer representing the marks obtained by the student.

Output Format:

- Print "Pass" if the student passed the exam.
- Print "Fail" if the student failed the exam.

Sample Test Cases

passOrFa...

```
1 marks = int(input())
2
3 if marks >= 40:
4     print("Pass")
5 else:
6     print("Fail")
```

Average time

0.002 s

1.86 ms

Maximum time

0.002 s

2.00 ms

3 out of 3 shown test case(s) passed

4 out of 4 hidden test case(s) passed

Test case 1

Expected output

45

Actual output

45

Pass

Test case 2

Test case 3

Terminal

Test cases

2.1.1. Roots of a Quadratic Equation

Write a program to find the roots of a quadratic equation, given its coefficients a , b , and c . Use the quadratic formula:

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

The discriminant $D = b^2 - 4ac$ determines the nature of the roots:

- If $D > 0$: Roots are real and different
- If $D = 0$: Roots are real and the same
- If $D < 0$: Roots are imaginary

Input Format:

- Three space-separated integers representing the coefficients a , b , and c , respectively.

Output Format:

- If roots are real and different, print:

```
root1 = <Root1>
root2 = <Root2>
```

- If roots are the same, print:

```
root1 = root2 = <Root1>
```

- If roots are imaginary, print:

```
root1 = <RealPart>+<ImaginaryPart>i
root2 = <RealPart>-<ImaginaryPart>i
```

- All values should be formatted to two decimal places.

Sample Test Cases

quadratic...

```
1 import math
2 a, b, c = map(int, input().split())
3
4 D = b * b - 4 * a * c
5
6 if D > 0:
7     root1 = (-b + math.sqrt(D)) / (2 * a)
8     root2 = (-b - math.sqrt(D)) / (2 * a)
9     print(f"root1 = {root1:.2f}")
10    print(f"root2 = {root2:.2f}")
11
12 elif D == 0:
13     root = -b / (2 * a)
14     print(f"root1 = root2 = {root:.2f}")
15
16 else:
17     real_part = -b / (2 * a)
18     imaginary_part = math.sqrt(-D) / (2 * a)
19     print(f"root1 = {real_part:.2f}+{imaginary_part:.2f}i")
20     print(f"root2 = {real_part:.2f}-{imaginary_part:.2f}i")
```

Average time

0.006 s

6.17 ms

Maximum time

0.021 s

21.00 ms

3 out of 3 shown test case(s) passed

3 out of 3 hidden test case(s) passed

Test case 1 24 ms

Expected output

1 -5.6

root1 = -3.00

root2 = -2.00

Actual output

1 -5.6

root1 = -3.00

root2 = -2.00

Test case 2 4 ms

Terminal

Test cases

3.1.1. Largest of Three Numbers

Write a Python program that prompts the user to enter three integers. Print the largest of the three integers.

Input Format:

- The program will prompt the user to enter three integers, one per line.

Output Format:

- The output will display the largest integer among the three integers.

Sample Test Cases

largestNu...

```
1
2 a = int(input())
3 b = int(input())
4 c = int(input())
5
6 largest = a
7 if b > largest: largest = b
8 if c > largest: largest = c
9
10 print(largest)
```

Average time

0.008 s

8.25 ms

Maximum time

0.013 s

13.00 ms

2 out of 2 shown test case(s) passed

2 out of 2 hidden test case(s) passed

Test case 1 10 ms

Expected output

5

6

7

7

Actual output

5

6

7

7

Test case 2 13 ms

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Test cases

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3.1.2. Celsius to Fahrenheit

Write a Python program to convert temperature from Celsius to Fahrenheit.

Formula:
Fahrenheit = $\left(\text{Celsius} \times \frac{9}{5}\right) + 32$

Input Format:
• Single line contains a float value representing the temperature in Celsius.

Output Format:
• Print the temperature in Fahrenheit as a float value formatted to 2 decimal places.

Sample Test Cases

temperat...

```
1 celsius = float(input())
2 fahrenheit = (celsius*9/5)+32
3 print(f"{fahrenheit:.2f}")
4
5
```

Average time
0.003 s
3.13 ms

Maximum time
0.010 s
10.00 ms

4 out of 4 shown test case(s) passed
4 out of 4 hidden test case(s) passed

Test case 1
Expected output
0.0
32.00

Actual output
0.0
32.00

Test case 2

Test case 3

Terminal

Test cases

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