

Additional Requirements

PI value is 3.14159

For questions 1-2 and 5, the output number needs to be rounded to 2 decimal places after the decimal separator(.)

For question 3, the output needs to be an integer.

Test Cases

Note: the following test cases are only for validating the correctness of your programs. The final input and output formats can vary.

Question 1

- Input:
 - Radius: 12
 - Height: 12
- Output:
 - Side: 17.58

Question 2:

- Input:
 - Enter the length of the yard: 12
 - Enter the radius of the fully grown tree: 1
 - Enter the distance between fully grown trees: 1
- Output:
 - The number of trees that can be planted: 4
 - Total area occupied by the trees: 12.57

Question 3:

- Input:
 - Enter the current population of town A: 5000
 - Enter the current population of town B: 8000
 - Enter the growth rate of town A: 10.00
 - Enter the growth rate of town B: 1.00
- Output:

After 6 year(s) the population of town A will be greater than or equal to the population of town B.

After 6 population of town A is 8857

After 6 population of town B is 8490

Question 4

- Input:
 - Number: 431
- Output
 - Answer: Yes, it is a prime.

Question 5

- Input:
 - Price: 30 Copies: 5000
- Output
 - O1: 25000, O2: 18750, O3: 16200
 - Best: O1