

Write python program

1. to evaluate the area of different geometrical figures depending on user's choice, where figure may be one of the followings:-

a) a rectangle, where the value of the length and breadth are taken as input. Area = length * breadth

b) a circle, where the value of radius be taken as input. Area = π * (radius)², where $\pi = 3.141592653589793$ (otherwise, you may use pie - by importing math library).

c) a triangle, where the measurement of three sides be a, b and c . Values of a, b and c are taken as input.

$$\text{Area} = \sqrt{s * (s-a) * (s-b) * (s-c)}, \text{ where } s = \frac{a+b+c}{2}$$

2. to find out the value of addition, subtraction and production of two complex numbers.
3. To find out the sum or product or subtraction of two numbers depending on the user's choice. Suppose enter 1 for sum, or 2 for product, or 3 for subtraction.
4. to find out the equivalent grade for a given marks(in percentage), where grades are set as A++, A+, A and B respectively for marks greater or equal to 80, marks greater or equal to 70 but less than 80, marks greater or equal to 60 but less than 70 and marks less than 60 . Value of marks be taken as input.
5. to find the maximum and minimum value among three numbers taken as input.
6. to find the sum of the series (1/n!)
7. to find the sum of the series (1/2ⁿ)
8. to check whether a given number is prime or not.
9. to find out all the prime numbers within a given range.
10. To print first n fibonacci numbers. Output as:- Numbers are - 1,1,2,3,5,8,...
11. To print nth fibonacci number.
12. to check whether the number is palindrome or not