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BE 1600

3 October 2021

1. (6 points) Write Python statement for each of the following questions

a) Find the product of the numbers 8, 9, and 10. print(8*9*10)

b) Find the average age of five people around you using integer division.

average_age=(25+56+92+12+1)/5

c) Compute 3 to the 110th power. print(3**110)

d) Compute the factorial of 13.

N = 13

Fact = 1

For i in range(1,n+1):

      Fact = fact * i

Print ("the factorial of 13 is : ",end="")

Print (fact)

e) Find the volume of a sphere with a radius of 1 using the formula $4/3\pi r3$.

Pi = 3.1415926535897931

R = 1

v= 4/3*pi*r**3

print("the volume of the sphere is: "v)

f) Compute 1/3 of 15? print(⅓*15)

2. (6 points) Answer each of the following questions

a) Which of the following are legal variable names:

(a) _abc123

(b) 123abc

(c) abc123_ **this one**

(d) _123

b) Consider the following statements:

idx = 0idx = idx + 1idx = idx + 2

What is the value of idx after Python evaluates these three statements?

3

c) What would the following display?num = 99num = 5print(num)

5

d) If you execute these three lines of code, what will be printed?

my_var1 = 7

my_var2 = 5

print(my_var1 % my_var2)

2

e) What will be printed by the following:

x = 4

y = 5

print(x//y)

0

f) Given the expression 30 - 3 ** 2 + 8 // 3 ** 2 * 10, what is the output of the expression? Based on precedence and associativity of the operators in Python, correctly parenthesize the expression such that you get the same output as above.