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[BE\_1600\_2201\_001](https://canvas.wayne.edu/courses/161822)

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Assignment 01

1. (6 points) Write a Python statement for each of the following questions  
a) Find the product of the numbers 8, 9, and 10.  
 8 \* 9 \* 10  
b) Find the average age of five people around you using integer division.   
( ( 20 + 35 + 40 + 12 + 43) / 5 )  
c) Compute 3 to the 110th power.

3\*\*110  
d) Compute the factorial of 13.  
 (math.factorial(13))  
e) Find the volume of a sphere with a radius of 1 using the formula 4/3πr3.  
 4/3 \* (math.pi) \* 3  
f) Compute 1/3 of 15?

15/3

2. (6 points) Answer each of the following questions  
a) Which of the following are legal variable names:  
(a) \_abc123  
(b) 123abc  
(c) abc123\_  
(d) \_123

Legal Names are options A, B, and D

b) Consider the following statements:  
idx = 0  
idx = idx + 1  
idx = idx + 2  
What is the value of idx after Python evaluates these three statements?

3  
c) What would the following display?  
num = 99  
num = 5  
print(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.

( 30 - ( 3 \*\* 2 ) ) + 8 // ( ( 3 \*\* 2 ) \* 10 )

Output is 21