Homework 1: Python Basics
Due: Wednesday, February 9th, 11:59PM EST

Tomáš Horníček, no collaborators, no sources, not using the extension option

1 Without Coding (you may not use Python)

Problem 1 (13 points)

Evaluate the following expressions:

1. 11.1 + 12 = 23.1
2. 10 − 12.1 = -2.1
3. 5 ∗ ∗3 = 125
4. 4 ∗ 5 = 20
5. 15⁄10 = 1.5
6. 12⁄20 = 0.6
7. 15∥10 = 1
8. 12∥20 =0
9. 5%2 = 1
10. 9%5 = 4
11. 2%5 = 2
12. 6%6 = 0
13. 0%7 = 0

Problem 2 (5 points)

What is the value of the below expression? Show your work

2 + 10%3 ∗ (4 − 1) ∗ 20⁄5 ∗ (2 + 3) = 2+1x3x4x5 = 62

Problem 3 (5 points)

What is the output of the following code?

```
my_int = 5
my_int *= 3

print(my_int)
```
[1]

Output: 15

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Problem 4 (6 points)

You see the following code:

```
A = input("Enter number 1")
B = input("Enter number 2")
a = int(a)

b = int(b)
c = a + b
```
[2]

You get the error:
NameError: name 'a' is not defined on line 3.

Why did this happen?

Because only capital "A" is defined in the previous line of code, whereas lowercase "a" is not defined in the code before.

Problem 5 (11 points)

For each of the following expressions, say whether it is valid or invalid in Python. If valid, what simplified value would the left side be assigned to? If invalid, briefly explain why. Assume this is the start of the program and no variables have been defined before.

   1. foo = "Hello" valid

   2. bar = True valid

   3. foobar = 1 + 2 valid

   4. foobar = "One" + "Two" valid

   5. true = 5 valid

   6. foo = test   not valid because test is undefined

   7. or = 1 not valid because using keyword "or"

   8. seven = 1 + "1" not valid because plus operator not defined between str and int

   9. six = "1" + 1 not valid because plus operator not defined between str and int

10. 1_var = 2 not valid because can't start a variable with a number

11. var_1 = "foo" valid