

Quiz 1 - practice questions

PROGRAMMING, FALL 2017

EML4930/6934, PYTHON

NAME:

The real quiz will have three questions similar to the ones below.

1. Name one difference between Python 2 and Python 3.
2. Show a properly syntax single line comment in Python. Show a bulk/multi-line comment in Python.
3. Consider floor division in Python 3. What will $3//2$ return?
4. Consider a list named `x`. What is the easiest way to call the last item in list `x`?
5. How should you properly denote a code block in Python?
6. Consider the following code:

```
for i in range(100):  
    print(i)
```

What will be the first value of `i`? What will be the last value of `i`?

7. Consider the following code:

```
x = [1, 2, 3, 4, 5]  
y = [i**2 for i in x]
```

List the values in `y`.

8. Define a function solve the quadratic equation

$$ax^2 + bx + c = 0 \tag{1}$$

where a, b, c are known numbers that are the input to your function. The solution is obtained as

$$x_1 = \frac{-b + \sqrt{b^2 - 4ac}}{2a}, x_2 = \frac{-b - \sqrt{b^2 - 4ac}}{2a} \tag{2}$$

and your function should return x_1 and x_2 .

9. What is the output of the following code

```
x = 1  
def new_x():  
    x = 2  
    print(x)  
new_x()  
print(x)
```

10. What is the name of the function within a class that runs automatically on each new instance of an object?