

Closed book, closed notes, log out of computer! Please write neatly!

7.1 Write the name of an element of the code below for each of the following roles. There may be more than one correct answer for a role, any correct answer will be accepted.

```
class House(Building):
    def __init__(self, rooms, floors):
        self.num_rooms = rooms
        self.num_floors = floors

    def multilevel(self):
        return self.num_floors > 1
```

Role	Example
Method	
Instance variable	
Base/Parent Class	
Derived/Child Class	

7.2. For the following code using the `Rational` class, which of the methods on `Rational` will be executed one or more times? *Select all that apply.*

```
r1 = Rational(1, 10)
r2 = Rational(2, 10)
print((r2 - r1) == r1)
```

Method executed	
<input type="radio"/>	<code>__init__</code>
<input type="radio"/>	<code>__add__</code>
<input type="radio"/>	<code>__sub__</code>
<input type="radio"/>	<code>__eq__</code>
<input type="radio"/>	<code>__le__</code>
<input type="radio"/>	<code>__str__</code>

7.3 In the boxes, write the final value for `val.a` and `val.b` after the code below right executes. The definitions for classes A and B are below left.

```
class A:
    def __init__(self, a):
        self.a = a

    def act_on(self, c):
        self.a -= c

class B(A):
    def __init__(self, a, b):
        super().__init__(a)
        self.b = b

    def act_on(self, c):
        self.a += self.b + c
```

```
val = B(3, 5)
val.act_on(7)
```

val.a	
val.b	