

Python Types and Expressions

1. Determine the value and type for each of the following expressions. If the expression will result in an error, enter **ERROR** in both boxes.

	value	type
<code>3 + 4</code>		
<code>3 + 4.0</code>		
<code>(3 + 4.0)7.0</code>		
<code>2 * -2**2</code>		
<code>1 + 12 / 5</code>		
<code>int(12.7)</code>		
<code>int("12.0")</code>		

	value	type
<code>1 + 10 / 5</code>		
<code>12 // 5</code>		
<code>12 % 5</code>		
<code>3 -- 4</code>		
<code>3 += 4</code>		
<code>str(2) + 3</code>		
<code>str(2)+str(3)</code>		

2. What will be printed when the following Python programs execute?

```
(a) x = 3 + 4
    x += 2
    x = x + 1
    x /= 3
    x * 10
    print(f"x is equal to {x:.2f}")
```

```
(b) first = "Dog"
    second = "Cat"
    first = first + second

    print(first, second, end="----")
    print(second[0], len(first))
```

```
(c) import math
    x = 2.1
    y = math.ceil(x)
    z = math.floor(x)
    print(f"{x} {y} {z} {math.pow(y, z)}")
```