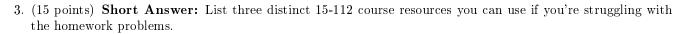
Name: _	Recitation: Andrew Id:
	15-112 Fall 2018 Quiz 1
	Up to 15 minutes. No calculators, no notes, no books, no computers. Show your work!
	Do not use string indexing, loops, lists, dictionaries, try/except, or recursion on this quiz.
	You may import the math library and use its functions.
repre	oints) Free Response: Write the function getTheCents(n) from hw1 which takes a value n (which sents a payment in US dollars) and returns the number of cents in the payment. For example, if n is 2.45, unction should return 45.

If n is an int, the function should return 0, as it has 0 cents; if it isn't a number, it should return None. If the payment has partial cents (for example, 3.953), it should be rounded up to the nearest cent (in this example, 96 cents).

2. (25 points) Free Response: Write the function checkNthPower(x, y, n) which takes three parameters, x, y, and n, and returns True if y is x raised to the nth power, and False otherwise. You may assume that x, y, and root are all real numbers (integers or floats).

For example, checkNthPower(2.2, 4.84, 2) should return True since $2.2^2 = 4.84$, and checkNthPower(9, 4, 0.5) should return False since $9^{0.5} = 3$, not 4.

Hint: recall that a negative number raised to a power between -1 and 1 results in an imaginary number. Don't let your function crash if x and n are both negative!



4. (20 points) **Code Tracing:** Indicate what the following program prints. Place your answer (and nothing else) in the box to the right of the code.

```
def a(x):
    print("a1", x)
    y = 2
    x = x * y
    y = 3
    print("a2", x, y)
    return x + y

def b(x):
    print("b1", x)
    return x * 3

x = 5
print("main", a(b(2)))
print("main", x)
```

5. (20 points) **Reasoning Over Code**: Find one set of arguments (values for a and b) for the following program that make it return True. Place your answer (and nothing else) in the box to the right of the code.

```
def roc(a, b):
    if (type(a) != int) or (type(b) != int):
        return False

if (a % b == 2) or (a > b):
        if (a // b == 5) and (a % b == 1):
            return True
    elif 1 < a % b < 3:
        return True
    return True
    return False</pre>
```