

Name: _____ Recitation: _____ Andrew Id: _____

15-112 Spring 2018 Quiz 1

Up to 15 minutes. No calculators, no notes, no books, no computers. Show your work!

1. (10 points) **Short Answer:** List three 15-112 course resources you can use if you're struggling with the homework problems.

2. (30 points) **Code Tracing:** Indicate what the following program prints. Place your answers (and nothing else) in the box to the right of the code.

```
x = 5
def ct1(x):
    print(x % 3, x // 3)
    x = x // 10
    print(x % 7, x // 7)
    return x // 10

print(ct1(123), end=" + ")
print(x)
```

3. (40 points) **Free Response:** Write the function `isOddOrNegativeInt` which takes a single argument, `n`, and returns `True` if `n` is an integer that is either odd or negative. If `n` is not an integer, or if `n` is even and positive, the function should return `False`. The function should not crash if it's given a non-integer value as input.

4. (20 points) **Reasoning Over Code:** Find an argument (the value of `x`) for `roc` that makes it return `True`. Place your answer (and nothing else) in the box to the right of the code.

```
def g(x):
    return x / 10
def f(x):
    a = x % 2 == 0
    b = x < 20
    c = g(x - 1) >= 10
    return (a or b) or c
def roc(x): # main function
    if isinstance(x, int):
        return not f(x + 1)
    return False
```