

22C:16 (CS:1210) Quiz 3

You have 20 minutes to complete this quiz.

1. Suppose that variable x has value 2 and variable y has value 5. Evaluate each of the following boolean expressions.

- (a) $(\text{not}(x == y) \text{ and } (y < x))$
- (b) $((x < 3) \text{ and } (3 \leq y))$
- (c) $\text{not}(\text{not}((y \% 3) \neq x))$
- (d) $((x \neq 5) \text{ or } (y \neq 5))$
- (e) $(x \geq 10) \text{ or } ((x < 4) \text{ or } (\text{not } (x > 6)))$

2. Write down the output produced by the following program:

```
n = 2
while n <= 9:
    m = 10
    while m > 2:
        print m * n
        m = m - n
    print "----"
    n = n + 3
```

3. Rewrite the following program so that it does exactly the same thing, but does not use a `break`. The program you write should contain a `while`-loop, have the same variables, have roughly the same length, etc., but it should not have a `break` statement. It should be similar to the program you see below, although you may need to recast things a bit and move some things around.

```
product = 1
while True:
    n = int(raw_input("Enter a positive integer: "))
    if (n%2 != 0) or (n < 1):
        print "The product is:", product
        break

    product = product * n
```