Atul Parida

1006184

50.003 Elements of Software Construction

Cohort Exercise 11

Q1.



1. The CFG is as follows:
2. Complexity = e - n + 2p = 15 - 13 + 2 = 4.
3. Paths:
   1. Both x < 1 and y < 1.  
      Test case = gcd(0,0), expect null
   2. (x < 1) true and (y < 1) false  
      Test case = gcd(0,5), expect null
   3. (x < 1) false and (y < 1) false, and (x != y) true:  
      Test case =gcd(15,9), expect 3.
4. Test cases for MCDC coverage:
5. (x < 1) false and (y < 1) true: gcd(0,5) expect null.
6. (x < 1) false and (y < 1) false, (x != y) false: gcd(5,5) expect 5.

5) The test cases are given in the code.  
  
Q2 and Q3: Given in code.