Question 1:

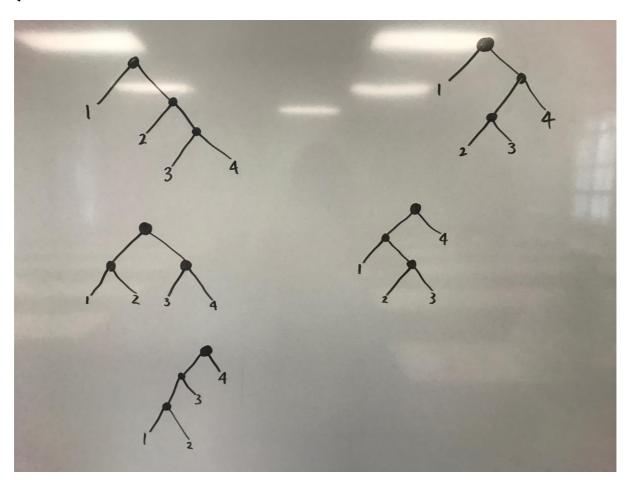**Question 2:**

((((1 2) 3) 4) 5)   (((1 (2 3)) 4) 5)

((1 ((2 3) 4)) 5)   ((1 (2 (3 4))) 5)

(((1 2) (3 4)) 5)   (1 (((2 3) 4) 5))

(1 ((2 (3 4)) 5))   (1 (2 ((3 4) 5)))

(1 (2 (3 (4 5))))   (1 ((2 3) (4 5)))

((1 2) (3 (4 5)))   (((1 2) 3) (4 5))

((1 2) ((3 4) 5))   ((1 (2 3)) (4 5))

Possible Combinations = 14

Question 3:

N = 20 before overflow prevents further calculations.

```
1
1
2
5
14
42
132
429
1430
4862
16796
58786
208012
742900
2674440
9694845
35357670
129644790
477638700
1767263190
```