## **Discrete Math HW #4**

## Chapter 9 pp. 350-355

 $(2 \text{ or } 3^* \text{ pts. each})$ 

#9, 11, 14\*ab & Condorcet, 15\*ab & Condorcet

## **Complete the questions below**

1. An election with six candidates is using preference lists as its ballots. How many different preference lists are possible?

(3)

2. In the same election as in 1. they will use the Condorcet method to decide the winner. If they compare every candidate to every other candidate, how many comparisons must they make?

(3)

3. An election with four candidates is decided using Borda Count. There are five voters in the election.

a. How many points will be distributed among the candidates?

b. What is the maximum number of points a candidate can earn?

c. What is the smallest score that will guarantee a victory for a candidate?

(5)