Activity 3: Pairwise Comparison

Solutions

1. Consider the table below.

	Shawn	Gail	Twanda	Ricco
Shawn	----------			
Gail	----------	----------		
Twanda	----------	----------	----------	
Ricco	----------	----------	----------	----------

For N candidates, the table will be a square with N x N or N^2 cells. The table has N^2 empty cells that indicate head-to-head match-ups (in this case 16 because there are four candidates). The cells on the main diagonal are eliminated in every case, so the number of match-ups is $N^2 - N$. Half of the remaining cells are duplicates of each other, so divide by 2 to get $(N^2 - N)/2$ for the total number of match-ups for N candidates. Factor out N to get $N(N - 1)/2$, where N is the number of candidates.

2. Twanda

3. Ricco

4. Twanda

5. Ricco

6. Twanda

7. One point

8. Zero points

9. Three points

10. Two points

11. Twanda wins the election using Pairwise Comparison.votes. Ricco wins the election.