



















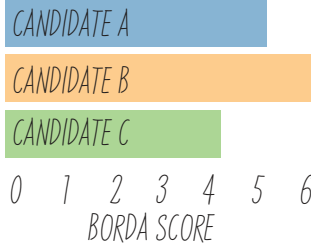


# RANKED-CHOICE VOTING SYSTEM

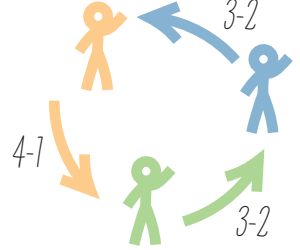
VOTERS	CANDIDATE RANKING		
	1ST	2ND	3RD
			
			
			
			
			

BORDA COUNT (2-1-0)

WINNER: CANDIDATE B 

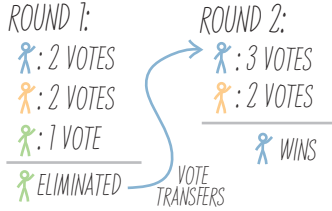


CONDORCET MAJORITY  
NO WINNER



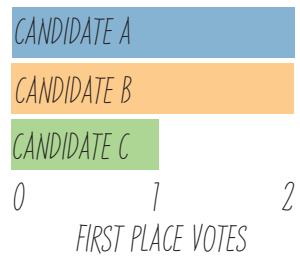
INSTANT RUNOFF VOTING

WINNER: CANDIDATE A 



PLURALITY

CANDIDATES A & B TIE



## ARROW'S IMPOSSIBILITY THEOREM:

NO RANKED-CHOICE VOTING SYSTEM CAN SATISFY ALL FAIRNESS CRITERIA SIMULTANEOUSLY



INDEPENDENCE OF IRRELEVANT ALTERNATIVES

RELATIVE RANKING OF TWO CANDIDATES CANNOT DEPEND ON THE RANKING OF AN IRRELEVANT THIRD CANDIDATE



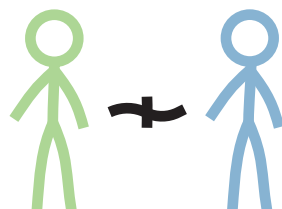
PARETO UNANIMITY

IF ALL VOTERS PREFER CANDIDATE B TO CANDIDATE A, THEN THE RESULTS SHOULD RANK B HIGHER THAN A



NO DICTATORSHIP

OUTCOME CANNOT BE DECIDED BY A DISTINGUISHED VOTER



COMPLETENESS

EVERY PAIR MUST BE COMPARABLE- EVERY CANDIDATE SHOULD RANK STRICTLY HIGHER OR LOWER THAN ANY OTHER