# Virtual Round Robin Election 

(a.k.a. Condorcet's Method)

## A ballot based on

## rankings

- A voter casts a ballot indicating which candidate is their first choice, second choice, third choice, and so on.

| 2 | Alice |
| :---: | :---: |
| 3 | Bob |
| 1 | Carl |
| 4 | Dave |

## VRR: A tournament between candidates

| vs. | Alice | Bob | Carl | Dave |
| :---: | :--- | :--- | :--- | :--- |
| Alice |  |  |  |  |
| Bob |  |  |  |  |
| Carl |  |  |  |  |
| Dave |  |  |  |  |

## VRR: A tournament between candidates

- 31 Votes cast might wind up looking like this:

| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  | 16 | 14 | 16 |
| Bob | 15 |  | 17 | 20 |
| Carl | 17 | 14 |  | 16 |
| Dave | 15 | 11 | 15 |  |

## A single ballot counted:

| 2 | Alice |
| :--- | :--- |
| 3 | Bob |
| 1 | Carl |
| 4 | Dave |


| vs. | Alice | Bob | Carl | Dave |
| :---: | :--- | :--- | :--- | :--- |
| Alice |  |  |  |  |
| Bob |  |  |  |  |
| Carl |  |  |  |  |
| Dave |  |  |  |  |

## Carl vs. Alice

| 2 | Alice |
| :--- | :--- |
| 3 | Bob |
| 1 | Carl |
| 4 | Dave |


| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  |  |  |  |
| Bob |  |  |  |  |
| Carl | 1 |  |  |  |
| Dave |  |  |  |  |

## Carl vs. Bob



| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  |  |  |  |
| Bob |  |  |  |  |
| Carl | 1 | 1 |  |  |
| Dave |  |  |  |  |

## Carl vs. Dave



| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  |  |  |  |
| Bob |  |  |  |  |
| Carl | 1 | 1 |  | 1 |
| Dave |  |  |  |  |

## Alice vs. Bob and Dave

| 2 | Alice |
| :--- | :--- |
| 3 | Bob |
| 1 | Carl |
| 4 | Dave |


| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  | 1 |  | 1 |
| Bob |  |  |  |  |
| Carl | 1 | 1 |  | 1 |
| Dave |  |  |  |  |

## Bob vs. Dave



| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  | 1 |  | 1 |
| Bob |  |  |  | 1 |
| Carl | 1 | 1 |  | 1 |
| Dave |  |  |  |  |

## A single ballot counted:

| 2 | Alice |
| :--- | :--- |
| 3 | Bob |
| 1 | Carl |
| 4 | Dave |


| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  | 1 |  | 1 |
| Bob |  |  |  | 1 |
| Carl | 1 | 1 |  | 1 |
| Dave |  |  |  |  |

## Another ballot counted:

| 1 | Alice |
| :--- | :--- |
| 2 | Bob |
| 3 | Carl |
| 4 | Dave |


| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  | 2 | 1 | 2 |
| Bob |  |  | 1 | 2 |
| Carl | 1 | 1 |  | 2 |
| Dave |  |  |  |  |

## Another ballot counted:

| 4 | Alice |
| :---: | :---: |
| 2 | Bob |
| 3 | Carl |
| 1 | Dave |


| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  | 2 | 1 | 2 |
| Bob | 1 |  | 2 | 2 |
| Carl | 2 | 1 |  | 2 |
| Dave | 1 | 1 | 1 |  |

## And The Winner Is

- Bob defeats Carl 17
-14, Dave 20-11
- Alice defeats Bob 16 -15, Dave 16-15
- Carl defeats Alice 17
-14, Dave 16-15
- Throwing out the weak defeat from Alice, Bob is the winner

| vs. | Alice | Bob | Carl | Dave |
| :---: | :---: | :---: | :---: | :---: |
| Alice |  | 16 | 14 | 16 |
| Bob | 15 |  | 17 | 20 |
| Carl | 17 | 14 |  | 16 |
| Dave | 15 | 11 | 15 |  |

