

## Appendix 'A'

### **Follow Your Ballot: An example of a ranked ballot election**

Source: <http://www.mah.gov.on.ca/Page11118.aspx>

Follow a ballot and learn what happens in a single-member and multi-member ranked ballot election.

#### **Single-member election: an election where one candidate is elected**

In this election, you are being asked to vote on the kind of fruit that will be served as a snack.

#### **Ranking the ballot**



With ranked ballots you can rank your choices from your most preferred to least preferred option. You rank the choices as follows:

- Cherry 1
- Pear 2
- Strawberry 3
- Apple 4

#### **Calculate the threshold to be elected**

Thirty people voted, and only one fruit can be chosen. Sixteen votes are needed for a fruit to be elected (50 per cent of 30 votes is 15 votes, plus one makes it a majority).

#### **Count the first choice votes**

After the ballots are distributed according to first choices, the vote count looks like this:

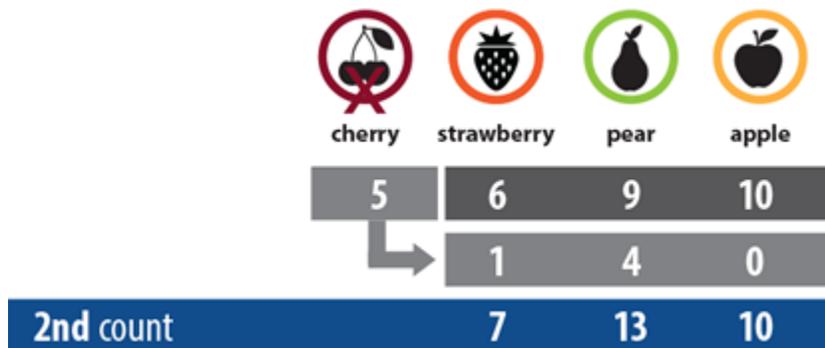


None of the fruits has received enough votes to be elected.

**Eliminate the option in last place and redistribute those ballots to other candidates**

Your first choice, Cherry got the fewest votes. Your ballot will now be given to your second choice, Pear. (The ballots of everyone else who voted for Cherry as their first choice will also be redistributed to their second choices).

After the 5 Cherry ballots are distributed, the new vote count is:



After the second round of counting, none of the fruits has received enough votes to be elected.

**Drop the last place and redistribute those ballots**

Strawberry now has the fewest votes. Your ballot stays with your second choice, Pear.

After the 7 Strawberry ballots are redistributed, the new vote count is:

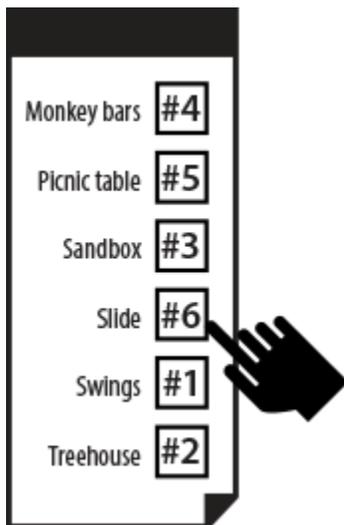


Pear is elected with 17 votes. Even though your first choice didn't get elected, your ballot helped your second choice to win.

### Multi-member Election: an election where more than one candidate is elected

In this election, you are being asked to vote on what new equipment should be installed in your neighbourhood park. Three pieces of equipment will be chosen out of a possible six.

### Ranking the ballot



With ranked ballots you can rank your choices from your most preferred to least preferred option. You rank your choices as follows:

- Monkey bars 4
- Picnic Table 5
- Sandbox 3
- Slide 6
- Swings 1
- Treehouse 2

### Calculate the threshold to be elected

In a multi-member ranked ballot election, the number of votes needed to be elected will depend on how many seats are being filled.

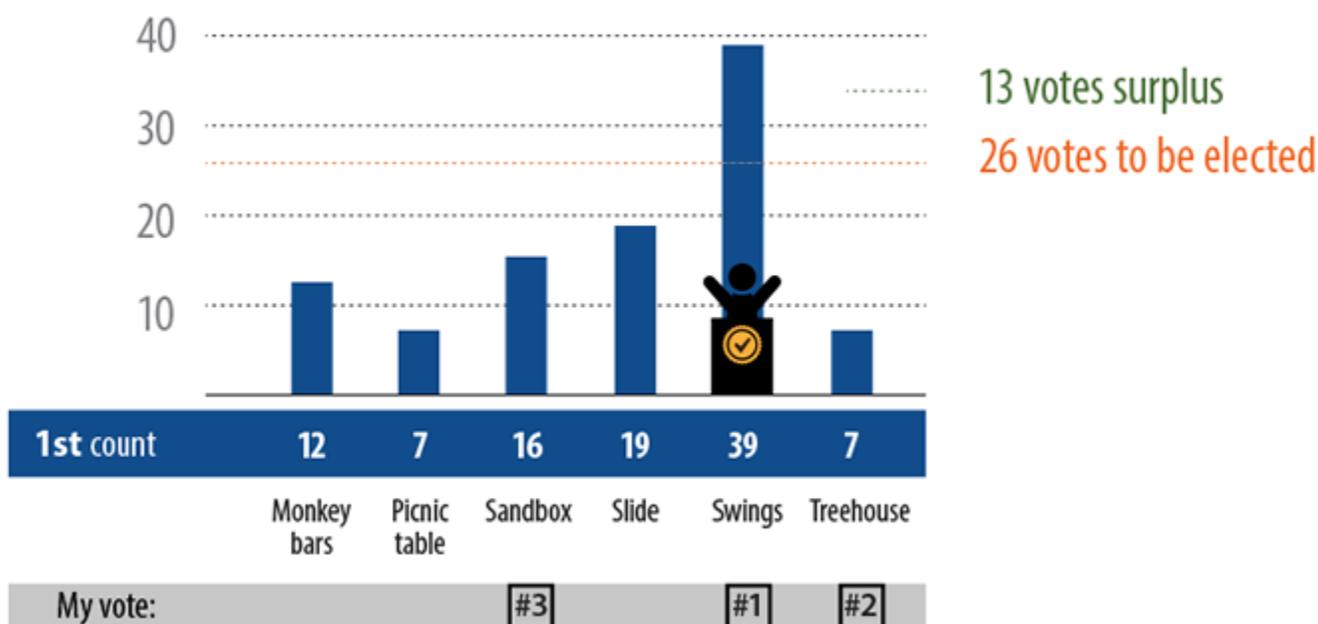
In this example, one hundred people voted, and three pieces of equipment will be chosen.

In order to be elected, a piece of playground equipment must earn twenty-six votes.

To do the math, one hundred votes divided by 4 (3 pieces of equipment will be chosen, plus one is 4) is 25 votes, plus one is 26.

### Count the first choice votes

After the ballots are distributed according to first choices, the vote count looks like this:



Swings has received more than 26 votes, and is declared the winner.

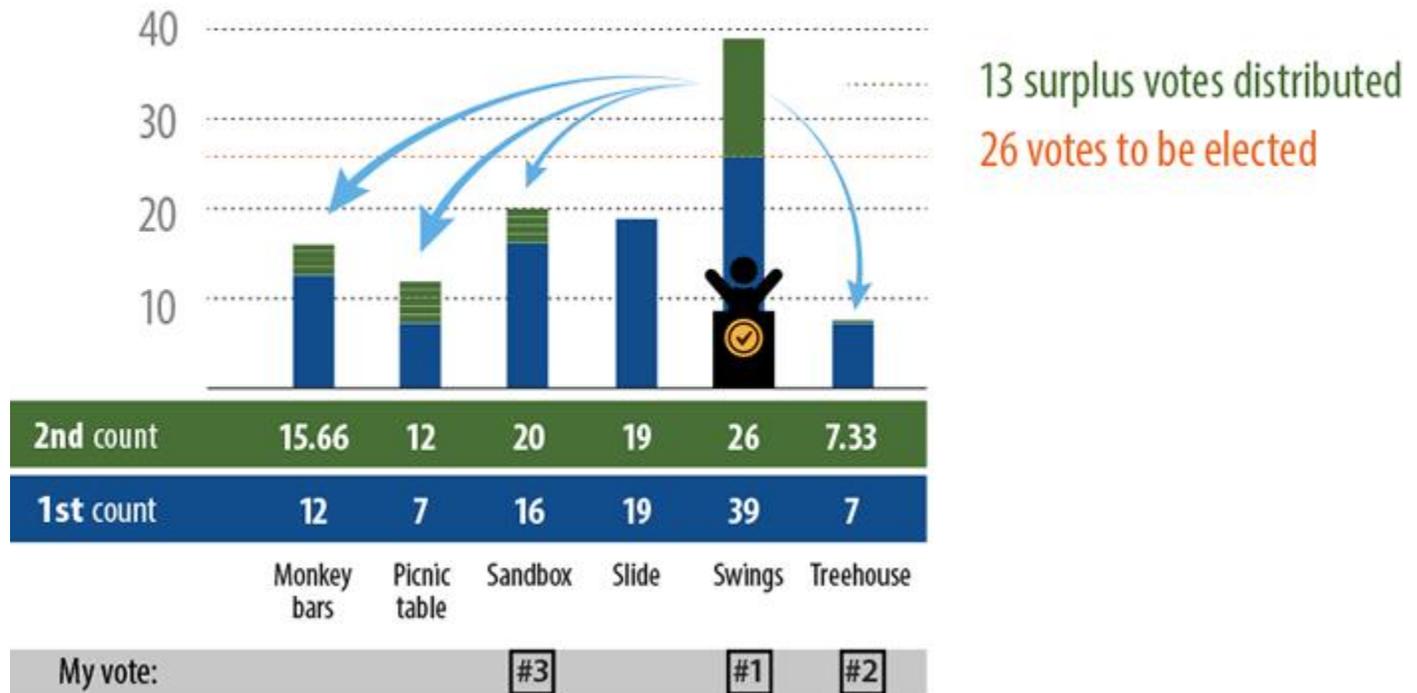
### Distribute the surplus

Since the threshold is 26 votes, and Swings got 39 first choice votes, Swings got 13 more votes than is needed to be elected.

Swings has a surplus of 13 votes. Thirteen divided by 39 is one-third. This means that Swings only needed two-thirds of your vote (along with two-thirds of the vote of everyone else who had Swings as a first choice) to be elected.

The two-thirds of your vote that Swings needs to be elected will stay with Swings. The other one-third of your vote will be given to your second choice, Treehouse. Each ballot that had Swings as the first choice will give one-third of their vote to their second choice.

After the ballots are redistributed, the new vote count is:



	Round 1 total	Votes added	New total
Monkey Bars	12	11 ballots worth 1/3 each: 3.66 votes	15.66
Picnic Table	7	15 ballots worth 1/3 each: 5 votes	12
Sandbox	16	12 ballots worth 1/3 each: 4 votes	20
Slide	19	0 votes	19
Swings	39	- 39 ballots worth 1/3 each: -13 votes	26 elected
Treehouse	7	1 ballots worth 1/3 each: 0.33 votes	7.33

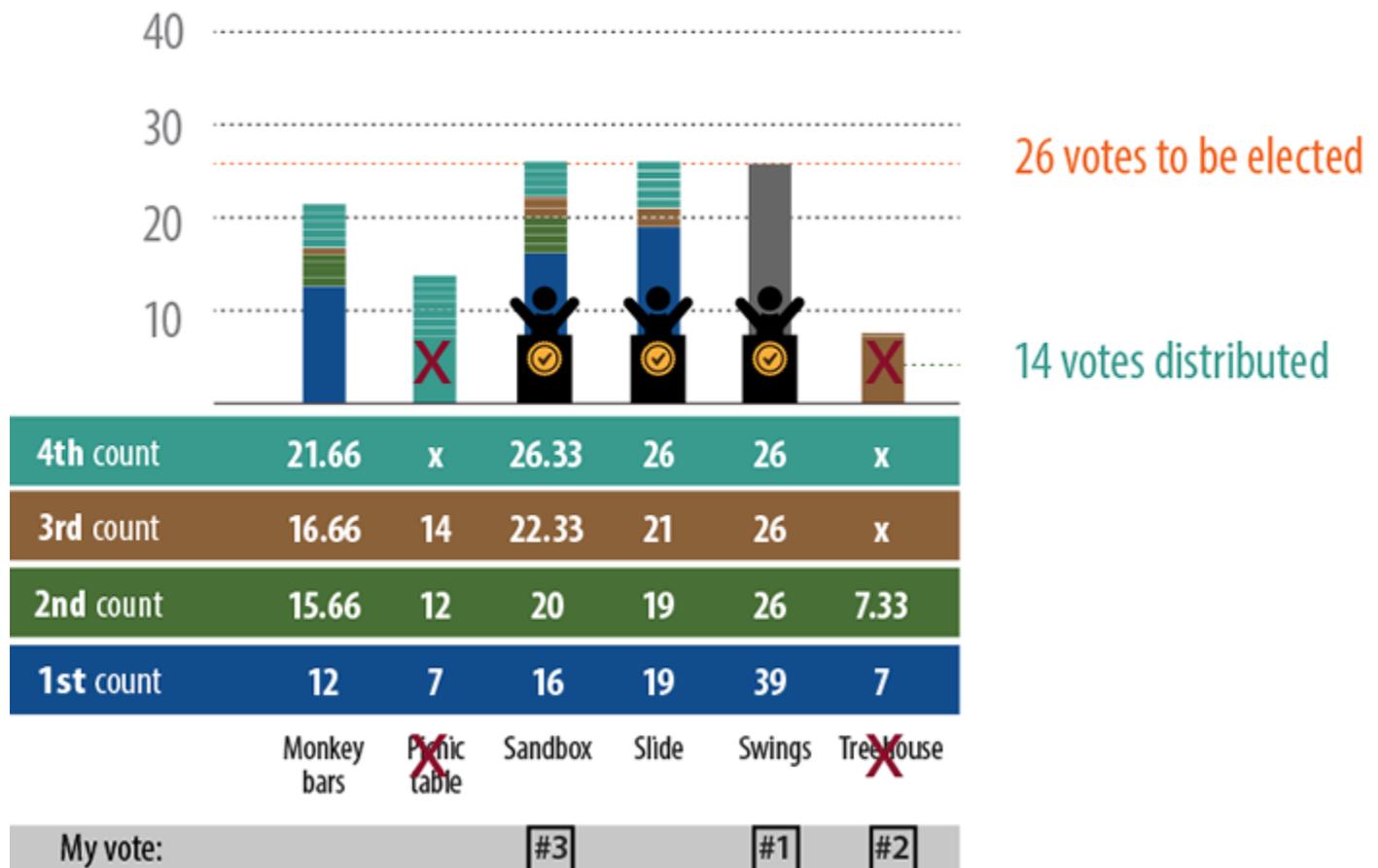


Picnic Table	12	2	14
Sandbox	20	2.33	22.33
Slide	19	2	21
Swings	26 elected	0	26 elected
Treehouse	7.33	-7.33 votes redistributed	0

None of the other candidates has earned the 26 votes needed to be elected.

### Drop the last place and redistribute those ballots

Picnic Table has the fewest votes, so it is now eliminated. Picnic Table's votes are now redistributed according to their next choice.



Round 3 total	Votes added	New total
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Monkey Bars	16.66	5	21.66
Picnic Table	14	-14	0
Sandbox	22.33	4	26.33 elected
Slide	21	5	26 elected
Swings	26 elected	0	26 elected
Treehouse	0	0	0

Sandbox and Slide have each earned 26 votes, so they have reached the threshold to be elected.

Recall that in this election, three pieces of equipment were to be elected out of a possible six. Since three candidates have reached the threshold, the counting stops.

The three winning candidates are Sandbox, Slide and Swings.