LESSON MAKER PRO

Vote Count Decisions

Use plurality and majority rules to analyze elections.

HIGH SCHOOL · MA.912.LT.3.1

MA.912.LT.3.1 "Define and explain the basic concepts of Election Theory and voting."

NAME _____ DATE _____

TWO VOTING RULES

A plurality winner has more votes than any other choice, even if that choice has less than half of all votes. A majority winner has more than half of all votes.

WORKED EXAMPLE

Three choices receive these votes: Pine 31, Mesa 27, and Lake 14. Find the plurality winner. Does that choice have a majority?

1. Add the votes: 31 + 27 + 14 = 72.
2. Pine has the largest total, 31 votes.
3. A majority of 72 is at least 37 votes, so Pine does not have a majority.

Answer: Pine wins by plurality, but Pine does not have a majority.

PRACTICE 5 problems

1 A class votes for a speaker. Aria gets 18 votes, Ben gets 25 votes, and Chen gets 17 votes. Who wins by plurality?

ANSWER _____

2 Forty students vote, and Jordan receives 21 votes. Does Jordan have a majority? State the fewest votes needed for a majority.

ANSWER _____

3 In an election with 63 voters, Daria gets 24 votes, Eli gets 19, Faye gets 12, and Gus gets 8. Who wins by plurality, and does that person have a majority?

ANSWER _____

4 A club uses a runoff when no candidate has a majority. Kira gets 29 votes, Mateo gets 26, Nia gets 15, and Omar gets 10. Which two candidates advance to the runoff?

ANSWER _____

5 In a 52-ballot election, Logan gets 22 votes, Noor gets 22 votes, and Priya gets 8 votes. What is the plurality result?

ANSWER _____

APPLY IT Show your work

1 Students vote on a school dance theme. Neon gets 54 votes, Acoustic gets 41, and Retro gets 25. The school requires a runoff if no theme has a majority. Which themes go to a runoff?

WORK SPACE

ANSWER _____

2 An esports club elects a captain from 75 ballots. Sam gets 38 votes, Taylor gets 21, and Val gets 16. The club accepts a winner only with a majority. Is Sam elected without a runoff?

WORK SPACE

ANSWER _____

CHALLENGE One step up

In a 96-ballot election, Ava gets 47 votes, Bo gets 29, and Cy gets 20. Later, 6 of Ava's ballots are ruled invalid. Under plurality, who wins after the recount? Does that person have a majority? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Vote Count Decisions

HIGH SCHOOL · MA.912.LT.3.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A class votes for a speaker. Aria gets 18 votes, Ben gets 25 votes, and Chen gets 17 votes. Who wins by plurality?	**Ben**
2	Forty students vote, and Jordan receives 21 votes. Does Jordan have a majority? State the fewest votes needed for a majority.	**Yes; 21 votes.**
3	In an election with 63 voters, Daria gets 24 votes, Eli gets 19, Faye gets 12, and Gus gets 8. Who wins by plurality, and does that person have a majority?	**Daria wins by plurality; no, a majority needs 32 votes.**
4	A club uses a runoff when no candidate has a majority. Kira gets 29 votes, Mateo gets 26, Nia gets 15, and Omar gets 10. Which two candidates advance to the runoff?	**Kira and Mateo**
5	In a 52-ballot election, Logan gets 22 votes, Noor gets 22 votes, and Priya gets 8 votes. What is the plurality result?	**Logan and Noor are tied for the plurality.**

PART 2 · APPLY IT

1. **Neon and Acoustic go to a runoff.** There are 120 votes, so a majority requires at least 61 votes. No theme has 61 votes, so the two highest totals advance.
2. **Yes. Sam is elected without a runoff.** A majority of 75 ballots is at least 38 votes. Sam has exactly 38 votes.

CHALLENGE

Ava still wins by plurality. After the recount, Ava has 41 votes out of 90, while Bo has 29 and Cy has 20. A majority requires 46 votes, so Ava does not have a majority.

Accept equivalent wording for plurality winner, tie, runoff, and majority. For majority thresholds, accept "more than half" when the student also reaches the correct conclusion.