Election Theory · Partner Check 1

A

Name: _____ Partner's name: _____ Date: _____

Directions: Work alone on your own problems. Partner B has different problems with the same answers. After each problem, compare answers; if they differ, find the mistake together.
Answer conventions: sets in roster form with elements in increasing order, ∅ for the empty set; truth columns as T/F strings in standard row order (TT, TF, FT, FF; with r: TTT, TTF, ..., FFF); fractions in lowest terms; ordered pairs as (x, y).

1

How many votes are a majority of 21 votes?

Answer: _____ Match? ☐ Yes ☐ No

2

Total population 2790, 9 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

3

How many votes are a majority of 23 votes?

Answer: _____ Match? ☐ Yes ☐ No

4

5 voters rank X first among 4 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

5

7 voters rank X first among 3 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

6

In [8: 8, 4, 2], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

Election Theory · Partner Check 1

B

Name: _____ Partner's name: _____ Date: _____

Directions: Work alone on your own problems. Partner A has different problems with the same answers. After each problem, compare answers; if they differ, find the mistake together.
Answer conventions: sets in roster form with elements in increasing order, ∅ for the empty set; truth columns as T/F strings in standard row order (TT, TF, FT, FF; with r: TTT, TTF, ..., FFF); fractions in lowest terms; ordered pairs as (x, y).

1

Weights 6, 6, 2, 6: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

2

Total population 1550, 5 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

3

Weights 8, 6, 9: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

4

5 voters rank X second among 5 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

5

7 voters rank X second among 4 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

6

In [7: 8, 2, 2], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

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1

12 voters rank X first among 4 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

2

How many votes are a majority of 30 votes?

Answer: _____ Match? ☐ Yes ☐ No

3

In [6: 4, 4, 3], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

4

Total population 6720, 14 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

5

How many votes are a majority of 28 votes?

Answer: _____ Match? ☐ Yes ☐ No

6

8 voters rank X first among 4 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

Election Theory · Partner Check 1

B

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Directions: Work alone on your own problems. Partner A has different problems with the same answers. After each problem, compare answers; if they differ, find the mistake together.
Answer conventions: sets in roster form with elements in increasing order, ∅ for the empty set; truth columns as T/F strings in standard row order (TT, TF, FT, FF; with r: TTT, TTF, ..., FFF); fractions in lowest terms; ordered pairs as (x, y).

1

12 voters rank X second among 5 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

2

Weights 7, 9, 6, 9: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

3

In [10: 8, 6, 5], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

4

Total population 2880, 6 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

5

Weights 7, 7, 8, 6: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

6

8 voters rank X second among 5 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

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A

Name: _____ Partner's name: _____ Date: _____

Directions: Work alone on your own problems. Partner B has different problems with the same answers. After each problem, compare answers; if they differ, find the mistake together.
Answer conventions: sets in roster form with elements in increasing order, ∅ for the empty set; truth columns as T/F strings in standard row order (TT, TF, FT, FF; with r: TTT, TTF, ..., FFF); fractions in lowest terms; ordered pairs as (x, y).

1

In [8: 6, 5, 4], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

2

How many votes are a majority of 26 votes?

Answer: _____ Match? ☐ Yes ☐ No

3

Total population 1800, 12 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

4

6 voters rank X first among 3 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

5

How many votes are a majority of 31 votes?

Answer: _____ Match? ☐ Yes ☐ No

6

11 voters rank X first among 4 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

Election Theory · Partner Check 1

B

Name: _____ Partner's name: _____ Date: _____

Directions: Work alone on your own problems. Partner A has different problems with the same answers. After each problem, compare answers; if they differ, find the mistake together.
Answer conventions: sets in roster form with elements in increasing order, ∅ for the empty set; truth columns as T/F strings in standard row order (TT, TF, FT, FF; with r: TTT, TTF, ..., FFF); fractions in lowest terms; ordered pairs as (x, y).

1

In [11: 8, 8, 5], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

2

Weights 9, 8, 6, 4: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

3

Total population 3150, 21 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

4

6 voters rank X second among 4 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No

5

Weights 9, 9, 8, 4: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

6

11 voters rank X second among 5 candidates (Borda: n points for 1st). How many points does X get from them?

Answer: _____ Match? ☐ Yes ☐ No