Election Theory · Partner Check 2

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

Total population 12320, 14 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

2

How many votes are a majority of 19 votes?

Answer: _____ Match? ☐ Yes ☐ No

3

In [6: 8, 1, 1], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

4

4 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

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

6

In [8: 7, 5, 3], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

Election Theory · Partner Check 2

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

Total population 15840, 18 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

2

Weights 4, 4, 9, 2: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

3

In [6: 7, 3, 1], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

4

3 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

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

6

In [10: 7, 6, 5], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

Election Theory · Partner Check 2

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 14 votes?

Answer: _____ Match? ☐ Yes ☐ No

2

In [9: 6, 5, 5], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

3

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

Answer: _____ Match? ☐ Yes ☐ No

4

9 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

Total population 10880, 17 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

6

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

Answer: _____ Match? ☐ Yes ☐ No

Election Theory · Partner Check 2

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 4, 3, 1, 6: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

2

In [12: 8, 7, 7], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

3

In [6: 6, 3, 1], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

4

9 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

Total population 13440, 21 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

6

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

Answer: _____ Match? ☐ Yes ☐ No

Election Theory · Partner Check 2

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

Total population 10350, 15 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

2

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

Answer: _____ Match? ☐ Yes ☐ No

3

In [7: 5, 5, 3], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

4

10 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 24 votes?

Answer: _____ Match? ☐ Yes ☐ No

6

In [6: 7, 3, 1], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

Election Theory · Partner Check 2

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

Total population 13110, 19 seats. Find the standard divisor.

Answer: _____ Match? ☐ Yes ☐ No

2

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

Answer: _____ Match? ☐ Yes ☐ No

3

In [9: 8, 6, 3], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No

4

10 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, 8, 7, 1: what is the smallest quota that is more than half the total?

Answer: _____ Match? ☐ Yes ☐ No

6

In [7: 7, 4, 1], how many times is P1 critical (over all winning coalitions)?

Answer: _____ Match? ☐ Yes ☐ No