

Harder version of Quiz 7

1. Consider the following example for questions (a)–(g).

6	6	2	2
A	C	C	B
C	B	A	A
B	A	B	C

$\xrightarrow[\text{for } A]{\text{ballot change}}$

6	6	2	2
A	C	A	B
C	B	C	A
B	A	B	C

(a) Who is/are the winners for plurality in the election on the left? (1 pt) $W_P = \{ \text{_____} \}$

(b) Who is/are the winners for runoff in the election on the left? (1 pt) $W_R = \{ \text{_____} \}$

(c) Consider the ballot change favorable to A, pictured above right.

After this ballot change:

i. What is the NEW winner set for plurality? (1 pt) $W'_P = \{ \text{_____} \}$

ii. What is the NEW winner set for runoff? (1 pt) $W'_R = \{ \text{_____} \}$

(d) Which winner selection method fails to satisfy monotonicity for this example?

Circle all the apply (2 pts):

plurality

runoff

Choose one of the above and explain why it does or does not satisfy monotonicity for this example (2 pts):