

## hw2\_csps\_q4\_arc\_consistency

### Question 4: Arc Consistency

5.0/5.0 points (graded)

Consider the problem of arranging the schedule for an event. There are three time slots: 1, 2, and 3. There are three presenters:  $A$ ,  $B$ , and  $C$ . The variables for the CSP will then be  $A$ ,  $B$ , and  $C$ , each with domain  $\{1, 2, 3\}$ . The following constraints need to be satisfied:

1.  $A$ ,  $B$ , and  $C$  all need to take on different values
2.  $A < C$

Enforce consistency for the arc  $A \rightarrow C$ , and then select which values remain for each variable.

☒  $A: 1$

☒  $A: 2$

☐  $A: 3$

☒  $B: 1$

☒  $B: 2$

☒  $B: 3$

☒  $C: 1$

☒  $C: 2$

☒  $C: 3$



Submit

You have used 1 of 16 attempts

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## problem

4.0/4.0 points (graded)

Starting from the result of the previous step, enforce consistency for the arc  $B \rightarrow A$ , and then select which values remain for each variable.

☒  $A: 1$

☒  $A: 2$

☐  $A: 3$

☒  $B: 1$

☒  $B: 2$

☒  $B: 3$

☒  $C: 1$

☒  $C: 2$

☒  $C: 3$



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You have used 2 of 16 attempts

## problem

4.0/4.0 points (graded)

Starting from the result of the previous step, enforce consistency for the arc  $C \rightarrow A$ , and then select which values remain for each variable.

☒  $A: 1$

☒  $A: 2$

☐  $A: 3$

☒  $B: 1$

☒  $B: 2$

☒  $B: 3$

☐  $C: 1$

☒  $C: 2$

☒  $C: 3$



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You have used 2 of 16 attempts