**Question 4: Successor Array**

| Total Scored out of 9 |  |
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**Part (a) findPosition 5 points**

Intent: Find the position of a given integer in a 2D integer array

+1 Accesses all necessary elements of intArr (no bounds errors)

+1 Identifies intArr element equal to num (in context of an intArr traversal)

+1 Constructs Position object with same row and column as identified intArr element

+1 Selects constructed object when intArr element identified; null when not

+1 Returns selected value

**Part (b) getSuccessorArray 4 points**

Intent: Create a successor array based on a 2D integer array

+1 Creates 2D array of Position objects with same dimensions as intArr

+1 Assigns a value to a location in 2D successor array using a valid call to findPosition

+1 Determines the successor Position of an intArr element accessed by row and column (in context of intArr traversal)

+1 Assigns all necessary locations in successor array with corresponding position object or null (no bounds errors)

**Question-Specific Penalties**

-1(s) Uses confused identifier Arr

-1(t) Uses intArr[].length as the number of columns

-1(u) Uses non-existent accessor methods from Position