**Question 3: Crossword**

| Total Scored out of 9 |  |
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**Part (a) toBeLabeled 3 points**

Intent: Return a boolean value indicating whether a crossword grid square should be labeled with a positive number

+1 Checks blackSquares[r][c]

+1 Checks for black square/border above and black square/border to the left (no bounds errors)

+1 Returns true if square should be labeled with positive number; returns false otherwise

**Part (b) Crossword constructor 6 points**

Intent: Initialize each square in a crossword puzzle grid to have a color (boolean)and an integer label

+1 puzzle = new Square[blackSquares.length][blackSquares[0].length]; (or equivalent)

+1 Accesses all locations in puzzle (no bounds errors)

+1 Calls toBeLabeled with appropriate parameters

+1 Creates and assigns new Square to location in puzzle

+1 Numbers identified squares consecutively, in row-major order, starting at 1

+1 On exit: All squares in puzzle have correct color and number (minor errors covered in previous points ok)

Question-Specific Penalties

-2(p) Consistently uses incorrect name instead of puzzle

-1(q) Uses array[].length instead of array[num].length