



Place your answer here: \_\_\_\_\_ (2 points)

Problem 3

You start with a 3x3 table with 0 in all the cells, shown below. You are allowed to choose any 2x2 subtable and increase all the cells of that 2x2 subtable by 1. After performing some number of these operations, you end up with the table shown below on the right. What is the missing number?

0	0	0
0	0	0
0	0	0

1	4	3
7	14	?
6	10	4

Place your answer here: \_\_\_\_\_ (2 points)

Problem 4

On December 1, Kevin the Sushi-Eating Machine declares, "Today I will eat more sushi than two days ago but less sushi than seven days ago." What is the greatest number of days that he can make this statement (including December 1) and have it remain true?

Place your answer here: \_\_\_\_\_ (2 points)

Problem 5

Let A = your answer to problem 1, B = your answer to problem 2, C = your answer to problem 3, and D = your answer to problem 4. Find:  $3 \times A \times C \times D + B$

Place your answer here: \_\_\_\_\_ (2 points)