## Homework 2

Combinatorics, Dave Bayer, due February 4, 2014

Name: $\qquad$ Uni: $\qquad$

| $[1]$ | $[2]$ | $[3]$ | $[4]$ | Total |
| :--- | :--- | :--- | :--- | :--- |
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|  |  |  |  |  |

If you need more that one page for a problem, clearly indicate on each page where to look next for your work.
[1] How many paths are there from the lower left corner to the upper right corner of this grid, moving only up or to the right?

[2] How many ways are there to make change for 40 cents, using pennies, nickels, dimes and quarters?
[3] How many ways are there to choose three of the integers $1,2,3,4,5,6,7,8$ without choosing adjacent integers?
[4] There are three ways to cut a hexagon into two squares. How many ways are there to cut a 12-gon into five squares?

