Name: ___________________________________________

Section: ___________________________________________

Assignment: 6

Due: Beginning of your class section on Monday, March 12

Maximum points: 40

Answer the following questions. Each question will be graded from 0 - 4 and the overall score scaled to the maximum number of points. Print only -- no cursive -- and use a pencil.

1. Given the declaration `int a = 5; int *b = &a;` and that `a` is at location 0x1000 and `b` is at location 0x2000, what does the code output: (write the output to the right of each line, write invalid if it would cause an error)
   
   ```
   cout << a; ___________________
   cout << b; ___________________
   cout << &a; ___________________
   cout << &b; ___________________
   cout << *a; ___________________
   cout << *b; ___________________
   ```

2. Write the simplest piece of code you can that creates a dangling pointer.

3. Write a code that allocates a dynamic two dimensional array, `ary`, with the first dimension `x` and the second dimension `y`, assuming `x` and `y` are of type `int`.

4. Write code that deallocates the array from above.

5. Given `int a[5] = { 2, 3, 5, 7, 11};` Write a loop that will print out the entire array with values on separate lines, but you must do so using pointer arithmetic rather than traditional array bracket notation.

Assignment score / max: ____________________/20

Scaled score: ____________________/40