Brian Veber
Assignment 8

Question 1:

a) 16 for the first for loop, 16 for the 2nd for loop, and 4 for the total number of square write lines. Multiplying these together, this comes to 16 x 16 x 4 = 1024.
b) The total number of misses can be calculated by dividing (total number of writes) / (block size). This is equivalent to (1024) / (32) = 32. Now we must multiply this by 4 for each array, which will then equal 128. Thus, there are 128 memory writes that miss in the cache.
c) The miss rate can be calculated as the total number of misses to the total number of elements in the function. This miss rate is B/A, this is equal to 128/1024, which is equal to 12.5% or 1/8.