Homework 1

Name: \_\_\_\_\_\_\_\_\_

(page 77, 2.1) Order the following functions by growth rate: , ,

(page 78, 2.7a (1)-(4)): For each of the following six program fragments, give an analysis of the running time (Big-Oh will do):

1. sum = 0;

For (i=0; I <n; ++i) ++sum;

1. sum = 0;

for (i=0; i<n; ++i)

for (j=0; j < n; ++j) ++sum;

1. sum = 0;

for (i=0; i<n; ++i)

for (j=0; j<n\*n; ++j) ++sum;

1. sum=0;

for (i=0; i<n; ++i)

for (j=0; j<i; ++j) ++sum;