

COURSE: AAD  
CLASS: BECE5  
YOUR NAME:

1. What factors do you think affect the performance (i.e., run-time) of a program?

2. Consider the following pseudocode:

```
procedure MatrixMultiplication(A, B)
  input A, B n*n matrix
  output C, n*n matrix

  begin
    for ( i = 0; i < n; i++)
      for ( j = 0; j < n; j++)
        C[i,j] = 0;
      end for
    end for

    for ( i = 0; i < n; i++)
      for ( j = 0; j < n; j++)
        for( k = 0; k < n; k++)
          C[i,j] = C[i,j] + A[i,k] * B[k,j]
        end for
      end for
    end for
  end MatrixMultiplication
```

What does the code do?

How many operations does this code do?

Do you think it makes a difference if we swap the loops j and k? So instead of the order ijk we would have ikj? Explain your answer.

