

ENGG*1410: “Introductory Programming for Engineers”, Assignment #5 Arrays

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Start Date: Week #5, Due Date: Week #6 (Friday, 5:00 PM) in Dropbox

1. Write the following program by reading the steps below.
 - (a) Declare an array of type integer with 10 values.
 - (b) Initialize the array to different values.
 - (c) Print all values of the array declared in step 1.
2. Write a program to multiply two matrices A, B and store the results in matrix C.
 - (a) Declare Matrix A to be of size 3x3
 - (b) Declare Matrix B to be of size 3x3
 - (c) Initialize both matrices to some values
 - (d) Print the contents of Matrix A and Matrix B.
 - (e) Print the contents of the Matrix C to display the result.
3. Write a program that calculates the average of an array of 10 floating point values;
4. What output do you expect fromt the following program?

```
#include <stdio.h>
int main (void)
{
    int numbers[10] = {1,0,0,0,0,0,0,0,0,0};
    int i, j;

    for (j = 0; j < 10; ++j)
    {
        for (i = 0; i < j; ++i)
            numbers[j] += numbers[i];
    }
    for (j=0; j < 10; ++j)
        printf("%i ", numbers[j]);

    printf("\n");
    return 0;
}
```