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Basic Syntax in C

Lecture 1 Assignments

1. Write a program that prints the following text at the terminal.
 - a. In C, lowercase letters are significant.
 - b. main is where program execution begins.
 - c. Opening and closing braces enclose program statements in a routine.
 - d. All program statements must be terminated by a semicolon.

```
#include <stdio.h>

int main(void){

    printf("In C, lowercase letters are significant.\n");
    printf("main is where program execution begins.\n");
    printf("Opening and closing braces enclose program statements in a routine.\n");
    printf("All program statements must be terminated by a semicolon.\n");

    return 0; }
```

```
In C, lowercase letters are significant.
main is where program execution begins.
Opening and closing braces enclose program statements in a routine.
All program statements must be terminated by a semicolon.
```

2. What output would you expect from the following program?

```
#include <stdio.h>
int main (void){
    printf ("Testing...");
    printf ("....1");
    printf ("...2");
    printf ("..3");
    printf ("\n");
    return 0;
}
```

>>> Output: Testing.....1...2..3 (followed by a blank line)

3. Write a program that subtracts the value 15 from 87 and displays the result, together with an appropriate message, at the terminal.

```
#include <stdio.h>

int main(void){
    int minuend, subtrahend, difference;

    minuend = 87;
    subtrahend = 15;
    difference = minuend - subtrahend;

    printf("The difference between %d and %d is %d.\n", minuend, subtrahend, difference);

    return 0;
}
```

>>> Output: The difference between 87 and 15 is 72.

4. Identify the syntactic errors in the following program. Then type in and run the corrected program to ensure you have correctly identified all the mistakes.

```
#include <stdio.h>
int main(Void)
INT sum;
/* COMPUTE RESULT
sum = 25 + 37 - 19
/* DISPLAY RESULTS //
printf ("The answer is %i\n" sum);
return 0;
}
```

```
#include <stdio.h>

int main(void)                                // Uncapitalize V
{                                              // Missing bracket
    int sum;                                  // Uncapitalize INT
    /* COMPUTE RESULT */                     // Close the comment
    sum = 25 + 37 - 19;                       // Missing semi-colon
    /* DISPLAY RESULTS */                     // Comment must end with */
    printf ("The answer is %i\n", sum);       // Separate with comma

    return 0;
}
```

>>> Output: The answer is 43

5. What output might you expect from the following program?

```
#include <stdio.h>
int main (void){
    int answer, result;
    answer = 100.
    result = answer - 10;
    printf ("The result is %i\n", result + 5);
    return 0;}
```

>>> Output: The result is 95 (followed by a blank line)