- 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.

Code

```
#include <stdio.h>
int main() {
    // Write C code here
    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;
}
```

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

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

The code will print the following statements in a single line because there are no new line syntax in the print statement. So the output would be Testing......1...2..3

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

Code

```
#include <stdio.h>
int main(void){
  int number1, number2, answer;
  number1=15;
  number2=87;
  answer=number2-number1;
  printf("The answer is %d.", answer);

return 0;
}
```

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```
1  #include <stdio.h>
2  int main(void){
3    int number1, number2, answer;
4    number1=15;
5    number2=87;
6    answer=number2-number1;
7    printf("The answer is %d.", answer);
8
9
10    return 0;
11 }
12
```

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;
}
```

In the program code above there are various syntax errors, these are;

- 1. In the 2nd line there is no "{" after the closing parenthesis in void.
- 2. In the 3rd line the Int should be in lowercase not in uppercase
- 3. In the 4th line the comment should be started with "//" and not with "/*" because it only has 1 line.
- 4. In the 5th line there should be a ";" after the last digit

- 5. In the 6th line comment should also be in "//" and remove the "//" in the last part of the line
- 6. In the 7th line "%d" should be used to show integer and not "%i" and remove the "\n" after the "%d"

```
Corrected code
#include <stdio.h>
int main(void){
    int sum;

//COMPUTE RESULT
    sum = 25 + 37 - 19;

//DISPLAY RESULTS
    printf("The answer is %d", sum);
return 0;
}
```

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```
1  #include <stdio.h>
2  int main(void){
3    int sum;
4  //COMPUTE RESULT
5    sum = 25 + 37 - 19;
6  //DISPLAY RESULTS
7    printf("The answer is %d", sum);
8  return 0;
9  }
10
```

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;
}
```

In the program code above there will be no expected output, because it has a syntax error. In the line 4 after defining the value for the integer answer it should be ended with a ";" and not ".". But if you fix this tiny mistake the expected output would be "The result is 95"

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