This homework you are going to write your own program. The assignment is for one program with 14 operators, not 14 programs with one operator. Submit a screen print of the program code and console output along with the code listing and the answers to the 10 questions below. Remember - This course has gone Paperless.

### Operator Summary Table

<table>
<thead>
<tr>
<th>Operator Summary</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>=</td>
</tr>
<tr>
<td>Arithmetic (Math)</td>
<td>+, -, *, /, %</td>
</tr>
<tr>
<td>Relational Operators (Equality)</td>
<td>==, !=</td>
</tr>
<tr>
<td>Relational Operators</td>
<td>&gt;, &lt;, &gt;=, &lt;=</td>
</tr>
<tr>
<td>Logical Operators</td>
<td>&amp;&amp;,</td>
</tr>
<tr>
<td>Arithmetic Assignment</td>
<td>+=, -=, *=, /=</td>
</tr>
<tr>
<td>Increment/Decrement</td>
<td>++, -- (pre &amp; post)</td>
</tr>
<tr>
<td>Bitwise</td>
<td>&amp; ,</td>
</tr>
<tr>
<td>Bitwise Shift</td>
<td>&lt;&lt;, &gt;&gt;</td>
</tr>
</tbody>
</table>

### Homework: - Program

Declare integers A and B.
Declare a result integer Result
Prompt for and input values for A and B (use values 7 and 9)

Create a series of statements – see example code

```plaintext
object = object operator object;
print each expression result
```

Do this for expression result for each of the following operations:
1. Addition
2. Subtraction
3. Multiplication
4. Modulus
5. Equality
6. Greater Than
7. Less Than or Equal
8. Logical And
9. Preincrement A
10. Post increment B
11. Bitwise And
12. Bitwise Or
13. Bitwise Shift Left A
14. Bitwise Shift Right B
Homework: - Questions

Make sure your output includes the Date from line 16 (and 8) for review.

Note: the bitwise operator usage is intended to be the the same as arithmetic operators.

Getting started is a program with the code for first operator as follows:

```
1. #include <stdio.h>
2. #include <time.h>
3. int main()
4. {  
5.     int A,B;
6.     int Result;
7.     time_t rawtime=time(NULL);
8.     // get the two input values
9.     printf("input value for A "); //prompt for first value
10.    scanf("%d", &A); //then read input
11.    printf("input value for B "); //prompt for second value
12.    scanf("%d", &B); //then read input
13.    // print time and date
14.    printf("\nOperators %s", ctime(&rawtime));
15.    //Below are the expression results for each of the following operations:
16.    Result = A+B;
17.    printf("A+B = %d\n",Result);
18.    // repeat above two lines for all 14 operators
19.    return 0;
20. }
```

Illustration 1: Example that prints time and date

Homework questions: - Answer the following questions referring to Illustration 1

Note: In C language an object has 5 parts: container, data type, name, value, address

1. C language requires objects to be declared before they can be used. Which lines show objects being declared?

2. The object of line 7 is what type of container?

3. The object of line 7 is what data type for the contents?

4. Which line instructs the compiler to include the stdlib header files as part of the source code?

5. Which library contains the header declarations allowing printing onto the console?

6. Which line is the starting point for the program called by the operating system?

7. Which folder holds the system header files?

8. Which line contains an assignment statement?

9. Every C language program has a 'main' function. That function is described by what line numbers?
10. Search Cplusplus.com and give the URL which explains and shows an example of scanf usage.