EEL 2880 HW3 Operators

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	Symbol
Assignment	=
Arithmetic (Math)	+, -, *, / , %
Relational Operators (Equality)	==, !=
Relational Operators	>, <, >=, <=
Logical Operators	&&, ||, !
Arithmetic Assignment	+=, -=, *=, /=
Increment/Decrement	++, -- (pre & post)
Bitwise	&, |
Bitwise Shift	<<, >>
Operator Summary Table	Precedence and Associativity
http://www.tutorialspoint.com/cprogramming/pdf/c_operators.pdf	

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
        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

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.
4.  int main()
5.  {
6.      int A,B;
7.      int Result;
8.      time_t rawtime=time(NULL);
9.      // get the two input values
10.     printf("input value for A ");  //prompt for first value
11.     scanf("%d", &A);  //then read input
12.
13.     printf("input value for B ");  //prompt for second value
14.     scanf("%d", &B);  //then read input
15.     // print time and date
16.     printf("\nOperators %s", ctime(&rawtime));
17.
18. //Below are the expression results for each of the following operations:
19.     Result = A+B;
20.     printf("A+B = %d\n",Result);
21. // repeat above two lines for all 14 operators
22.
23.     return 0;
24. }
```

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.