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// CS1412, Spring 2021
// Problem Solving & Program Design in C Lab 9 -
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// In Lab Assignment Due end of the lab session Acknowledge your collaborators or source of solutions, if
// any. Submission by the end of the LAB is required. Please type your answers, handwritten submission will
// not be accepted. Do all of the following.
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```
// 1. In the programming language C, a ____source/header____ file contains information about
// what a specific library's functions will do. The ____implementation____ file contains
// the details of how these actions are executed.
```

```
//// source/ header
//// implementation
```

```
// 2. When are variables of storage class static allocated? When are they deallocated?
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```
//// Variables of storage class static are allocated when the program begins, and deallocated when the program ends.
```

```
//3. What will the following code print? Please explain the behavior of the code in a few words. (What is it printing and why is it printing that?)
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```
#include <stdio.h>
#define ISEQUAL(X, Y) X == Y
int main() {
    #if ISEQUAL(X, 0)
        printf("x");
    #else
        printf("y");
    #endif
    return 0;
}
```

```
//// The program prints x, because the macro x is not defined, and when the macro is not defined the default value goes
//// to zero, making #ISEQUAL(X, 0) true. Printing x.
```