Let's take a little time to go over what we've learned so far in this unit. We've come quite a distance from the very beginning in Lesson 1 to our first real project in Lesson 5. Try to answer each of the questions below off the top of your head, but don't be afraid to go back and look up the answers if you're stumped or just a little fuzzy on something. You can find the answers to all of these questions at the end of Lesson 6.

**Review Questions**

Lesson 1

1. What is machine code?
2. What is source code?

Lesson 2

3. What are the two ways of adding comments to your code?
4. What are the four tools used to turn source code into machine code?
5. Name and define the two general classes of programming errors.

Lesson 3

6. What is the numerical result of \( 10 \mod 4 \) ?
7. What is the difference between \( ++i \) and \( i++ \)?
8. What is a shorter way of writing \( my\text{Var} = my\text{Var} \times 5 \) ?
9. Why is \( == \) used instead of \( = \) for comparing two quantities?
10. What is the `printf` placeholder for a `float`?
11. What are parameters?
12. What is the difference between the types `int` and `long`?
13. What is the numerical result of \( 10 / 4 \) ? \( 10.0 / 4.0 \) ?

Lesson 4

11. In the following code snippet, will anything be printed? Why?

```c
int i = 0;

if (i)
    printf("Spam and eggs.\n");
```

12. What operator should replace the word OR in the following code: `if (a == b OR a == c)` in order for the if statement to evaluate as true if either condition is true?
13. What do each of the three sections of a `for` loop control block do?

Lesson 5

14. What is a segmentation fault?
15. What is the last valid index for an array with 10 elements?
16. Why is it important to initialize a pointer to a known-good value or to `NULL`?
17. Which of these is a string, `\'a\'` or `"a"`?
18. A string is an array of what type?
19. Which header file (#include) that we have been using contains helper functions for working with strings?