

- ✓ The `#include <stdlib.h>` part is necessary because the program uses the `atoi()` function.
- ✓ The `if` command is followed by parentheses, which contain the comparison that the `if` keyword tests.
- ✓ The comparison that `if` makes tests the value of the variable `number` with 5. The `<` symbol between them means “less than.” The test reads “If the value of the variable `number` is less than 5.” If this is true, the cluster of statements following the `if` keyword is executed. If the test proves false, the cluster of statements is skipped.
- ✓ Remember the `<` — less than — from school? Good!
- ✓ Notice that the `if` test isn’t followed by a semicolon! Instead, it’s followed by a statement enclosed in curly braces. The statements (there can be more than one) “belong” to the `if` command and are executed only *if* the condition is true.
- ✓ If you see only the line `The genie knows all, sees all!`, you probably typed a number greater than 4 (which includes 5 and higher). The reason is that the `if` statement tests only for values *less than* 5. If the value is less than 5, `That number is less than 5!` is displayed. The next section elaborates on how it all works.
- ✓ No, the computer genie doesn’t know all and see all if you type a number 5 or greater.
- ✓ Did you notice the extra set of curly braces in the middle of this program? That’s part of how the `if` statement works. Also notice how they’re indented.

## The `if` keyword, up close and impersonal

It’s unlike any other C language word you have seen. The `if` keyword has a unique format, with plenty of options and room for goofing things up. Yet, it’s a handy and powerful thing that you can put in your programs — something you use a lot.

The `if` keyword is used to make decisions in your programs. It makes a comparison. If the result is true, the rest of the `if` statement is executed. If the comparison isn’t true, the program skips over the rest of the `if` statement, as shown in Figure 12-1.

The `if` statement is a statement “block” that can look like this:

```
if(comparison)
{
    statement;
    [statement;...]
}
```