```
        printf("Too low; try again.\n");
      else
        printf("Too high; try again.\n");
    }
  }
```

For random number generation, the guess.c program relies on the time, srand, and rand functions, which we first used in deal.c (Section 8.2). This time, we're scaling the return value of rand so that it falls between 1 and MAX_NUMBER.

Although guess.c works fine, it relies on an external variable. We made secret_number external so that both choose_new_secret_number and read_guesses could access it. If we alter choose_new_secret_number and read_guesses just a little, we should be able to move secret_number into the main function. We'll modify choose_new_secret_number so that it returns the new number, and we'll rewrite read_guesses so that secret_number can be passed to it as an argument.

Here's our new program, with changes in **bold**:

guess2.c

```
/* Asks user to guess a hidden number */

#include <stdio.h>
#include <stdlib.h>
#include <time.h>

#define MAX_NUMBER 100

/* prototypes */
void initialize_number_generator(void);
int new_secret_number(void);
void read_guesses(int secret_number);

int main(void)
{
  char command;
  int secret_number;

  printf("Guess the secret number between 1 and %d.\n\n",
         MAX_NUMBER);
  initialize_number_generator();
  do {
    secret_number = new_secret_number();
    printf("A new number has been chosen.\n");
    read_guesses(secret_number);
    printf("Play again? (Y/N) ");
    scanf(" %c", &command);
    printf("\n");
  } while (command == 'y' || command == 'Y');

  return 0;
}
```