```
extern float a;

void f(register double b)
{
  static int c;
  auto char d;
}
```

W 4. Let `f` be the following function. What will be the value of `f(10)` if `f` has never been called before? What will be the value of `f(10)` if `f` has been called five times previously?

```
int f(int i)
{
  static int j = 0;
  return i * j++;
}
```

5. State whether each of the following statements is true or false. Justify each answer.
   (a) Every variable with static storage duration has file scope.
   (b) Every variable declared inside a function has no linkage.
   (c) Every variable with internal linkage has static storage duration.
   (d) Every parameter has block scope.

6. The following function is supposed to print an error message. Each message is preceded by an integer, indicating the number of times the function has been called. Unfortunately, the function always displays 1 as the number of the error message. Locate the error and show how to fix it without making any changes outside the function.

```
void print_error(const char *message)
{
  int n = 1;
  printf("Error %d: %s\n", n++, message);
}
```

Section 18.3

7. Suppose that we declare `x` to be a `const` object. Which one of the following statements about `x` is *false*?
   (a) If `x` is of type `int`, it can be used as the value of a case label in a `switch` statement.
   (b) The compiler will check that no assignment is made to `x`.
   (c) `x` is subject to the same scope rules as variables.
   (d) `x` can be of any type.

Section 18.4

W 8. Write a complete description of the type of `x` as specified by each of the following declarations.
   (a) `char (*x[10])(int);`
   (b) `int (*x(int))[5];`
   (c) `float *(*x(void))(int);`
   (d) `void (*x(int, void (*y)(int)))(int);`

9. Use a series of type definitions to simplify each of the declarations in Exercise 8.

W 10. Write declarations for the following variables and functions:
   (a) `p` is a pointer to a function with a character pointer argument that returns a character pointer.