

however, the `*` symbol performs indirection (when used as a unary operator). The statement

```
*p = &i;    /*** WRONG ***/
```

would be wrong, because it assigns the address of `i` to the object that `p` points to, not to `p` itself.

Q: Is there some way to print the address of a variable? [p. 244]

A: Any pointer, including the address of a variable, can be displayed by calling the `printf` function and using `%p` as the conversion specification. See Section 22.3 for details.

Q: The following declaration is confusing:

```
void f(const int *p);
```

Does this say that `f` can't modify `p`? [p. 251]

A: No. It says that `f` can't change the integer that `p` *points to*; it doesn't prevent `f` from changing `p` itself.

```
void f(const int *p)
{
    int j;

    *p = 0;    /*** WRONG ***/
    p = &j;    /* legal */
}
```

Since arguments are passed by value, assigning `p` a new value—by making it point somewhere else—won't have any effect outside the function.

***Q: When declaring a parameter of a pointer type, is it legal to put the word `const` in front of the parameter's name, as in the following example?**

```
void f(int * const p);
```

A: Yes, although the effect isn't the same as if `const` precedes `p`'s type. We saw in Section 11.4 that putting `const` *before* `p`'s type protects the object that `p` points to. Putting `const` *after* `p`'s type protects `p` itself:

```
void f(int * const p)
{
    int j;

    *p = 0;    /* legal */
    p = &j;    /*** WRONG ***/
}
```

This feature isn't used very often. Since `p` is merely a copy of another pointer (the argument when the function is called), there's rarely any reason to protect it.

An even greater rarity is the need to protect both `p` *and* the object it points to, which can be done by putting `const` both before and after `p`'s type: