Section 25.3 

Modify the following program fragment by replacing as many characters as possible by trigraphs.

```
while ((orig_char = getchar()) != EOF) {
   new_char = orig_char ^ KEY;
   if (isprint(orig_char) && isprint(new_char))
      putchar(new_char);
   else
      putchar(orig_char);
}
```

7. (C99) Modify the program fragment in Exercise 6 by replacing as many tokens as possible by digraphs and macros defined in <iso646.h>.

## **Programming Projects**

- W 1. Write a program that tests whether your compiler's "" (native) locale is the same as its "C" locale.
  - 2. Write a program that obtains the name of a locale from the command line and then displays the values stored in the corresponding lconv structure. For example, if the locale is "fi FI" (Finland), the output of the program might look like this:

```
decimal point = ","
thousands_sep = " "
grouping = 3
mon_decimal_point = ","
mon thousands sep = " "
mon_grouping = 3
positive_sign = ""
negative sign = "-"
currency_symbol = "EUR"
frac_digits = 2
p_cs_precedes = 0
n_cs_precedes = 0
p_sep_by_space = 2
n_sep_by_space = 2
p_sign_posn = 1
n sign posn = 1
int curr symbol = "EUR "
int_frac_digits = 2
int_p_cs_precedes = 0
int n cs precedes = 0
int_p_sep_by_space = 2
int_n_sep_by_space = 2
int p sign posn = 1
int n sign posn = 1
```

For readability, the characters in grouping and mon\_grouping should be displayed as decimal numbers.