1. Function and Use.

This small program will convert Big 5 encoded Chinese characters into a 'preprocessed' form. The need of this program arises from the fact that this encoding uses the characters '\', '{', and '}' which have special meanings in TEX.

Use this program as a filter:

```
bg5conv < input_file > output_file
```

2. The program.

The only function of this program is to replace all occurrences of Big 5 encoded characters `XY` (`X` and `Y` are the first and the second byte of the character) with `XZZZ^^7f`, where `ZZZ` represents the second byte as a decimal number followed by `0x7F` as a delimiter.

Additionally we define a TEX macro at the very beginning to signal a preprocessed file.

The following code is very simple. No error detection is done because TEX which will see the output of `bg5conv` complains loudly if something is wrong.

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

int main(argc, argv)
    int argc;
    char *argv[];
{int ch;

 fprintf(stdout, "\\def\\CJKpreproc{}");

 ch = fgetc(stdin);

 while (!feof(stdin))
  {if (ch ≥ #A1 ∧ ch ≤ #FE)
     {fputc(ch, stdout);

      ch = fgetc(stdin);
      if (!feof(stdin))
        fprintf(stdout, "%d\177", ch);
     }
   else
      fputc(ch, stdout);

   ch = fgetc(stdin);
  }
 exit(EXIT_SUCCESS);
 return 0;                                          /* never reached */
}
```