#include <stdio.h>

#include <string.h>

int main()

{

int hexConstant[] = {0, 1, 10, 11, 100, 101, 110, 111, 1000,

1001, 1010, 1011, 1100, 1101, 1110, 1111};

long long binary, tempBinary;

char hex[20];

int index, i, digit;

/\* Input binary number from user \*/

printf("Enter binary number: ");

scanf("%lld", &binary);

/\* Copy binary number to temp variable \*/

tempBinary = binary;

index = 0;

/\* Find hexadecimal of binary number \*/

while(tempBinary!=0)

{

/\* Group binary to last four digits \*/

digit = tempBinary % 10000;

/\* Find hexadecimal equivalent of last four digit \*/

for(i=0; i<16; i++)

{

if(hexConstant[i] == digit)

{

if(i<10)

{

/\* 0-9 integer constant \*/

hex[index] = (char)(i + 48);

}

else

{

/\* A-F character constant \*/

hex[index] = (char)((i-10) + 65);

}

index++;

break;

}

}

/\* Remove the last 4 digits as it is processed \*/

tempBinary /= 10000;

}

hex[index] = '\0';

/\* Reverse the hex digits \*/

strrev(hex);

printf("Binary number = %lld\n", binary);

printf("Hexadecimal number = %s", hex);

return 0;

}