octToDec

Write a program that reads in an octal number, converts the octal number into the equivalent decimal number (i.e. converts the number with base value 8 to base value 10) and prints the converted decimal number to the screen. You do not need to check user input errors in the program.

A sample program template is given below:

```
#include <stdio.h>
#include <math.h>
int main()
{
   /* Write your code here */
   return 0;
}
```

Some test input and output sessions are given below:

(1) Test Case 1

```
Enter an octal number:
5
The equivalent decimal number: 5
```

(2) Test Case 2

```
Enter an octal number:
30
The equivalent decimal number: 24
```

(3) Test Case 3

```
Enter an octal number:
100
The equivalent decimal number: 64
```

(4) Test Case 4

```
Enter an octal number:
300
The equivalent decimal number: 192
```

```
#include <stdio.h>
#include <math.h>
int main()
{
   int dec=0,temp = 0,remainder = 0;
   int octal;

   printf("Enter an octal number:\n");
   scanf("%d",&octal);

   while (octal!=0)
   {
      remainder = octal%10;
      dec = dec+ remainder* pow(8,temp);
      temp++;

      octal = octal/10;
   }

   printf("The equivalent decimal number:
%d\n",dec);

  return 0;
}
```