Program-17

Design a class ArmNum to check if a given number is an Armstrong number or not.  
[A number is said to be Armstrong if sum of its digits raised to the power of length of the number is equal to the number]  
  
Example : 371 = 3 + 7 + 1   
1634 = 1 + 6 + 3 + 4   
54748 = 5 + 4 + 7 + 4 + 8   
  
Thus 371, 1634 and 54748 are all examples of Armstrong numbers.  
  
Some of the members of the class are given below:  
  
Class name : ArmNum  
  
Data members / instance variables:  
n : to store the number  
l : to store the length of the number  
  
Methods / Member functions:  
ArmNum(int nn) : parameterized constructor to initialize the data member n=nn  
int sum\_pow(int i) : returns the sum of each digit raised to the power of the length of the number using recursive technique eg. 34 will return 32 + 42 (as the length of the number is 2)  
void isArmstrong( ) : checks whether the given number is an Armstrong number by invoking the function sum\_pow( ) and displays the result with an appropriate message  
  
Specify the class ArmNum giving details of the constructor( ), int sum\_pow(int) and void isArmstrong( ).   
Define a main( ) function to create an object and call the functions accordingly to enable the task.