Programming Simplified

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C program to generate and print armstrong numbers

C program to generate Armstrong numbers. In our program user will input two integers and we will print all Armstrong numbers between two integers. Using a for loop we will check numbers in the desired range. In our loop we call our function check_armstrong which returns 1 if number is Armstrong and 0 otherwise. If you are not familiar with Armstrong numbers see Check Armstrong number program.

C programming code

```c
#include <stdio.h>

int check_armstrong(int);
int power(int, int);

int main () {
   int c, a, b;

   printf("Input two integers\n");
   scanf("%d%d", &a, &b);

   for (c = a; c <= b; c++) {
      if (check_armstrong(c) == 1)
         printf("%d\n", c);
   }

   return 0;
}

int check_armstrong(int n) {
   long long sum = 0, temp;
   int remainder, digits = 0;

   temp = n;

   while (temp != 0) {
      digits++;
      temp = temp/10;
   }

   temp = n;

   while (temp != 0) {
      remainder = temp%10;
      sum = sum + power(remainder, digits);
      temp = temp/10;
   }

   if (n == sum)
      return 1;
   else
      return 0;
}

int  power(int n, int r) {
```
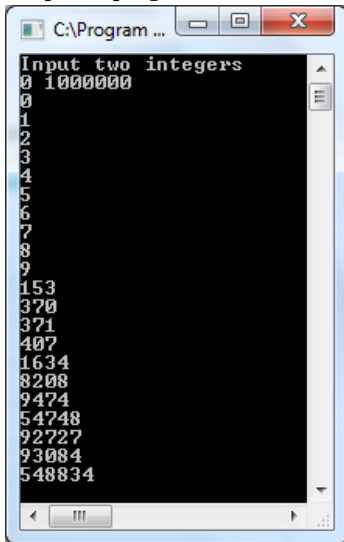
```
    int c, p = 1;

    for (c = 1; c <= r; c++)
        p = p*n;

    return p;
}
```

Download Generate Armstrong numbers program.

Output of program:

In the sample output we are printing Armstrong numbers in range [0, 1000000].