PROBLEMS

SOLUTIONS

# 1.

#include **<stdio.h>  
  
void** funct(**int** N){  
 **if**(N==0){  
 **return**;  
 }  
 **else**{  
 **for**(**int** i=0 ; i<N ; i++){  
 printf(**"\*"**);  
 }  
 printf(**"\n"**);  
 }  
 funct(N-1);  
}  
  
**int** main()  
{  
 **int** N;  
 scanf(**"%d"**,&N);  
 funct(N);  
 **return** 0;  
}

# 2.

#include **<stdio.h>  
  
int** reverseNumber(**int** number){  
 **int** rev=0;  
 **while**(number){  
 **int** lastDigit=number%10;  
 rev=rev\*10+lastDigit;  
 number/=10;  
 }  
 **return** rev;  
}  
  
**int** isPalindrome(**int** number){  
 **if**(number== reverseNumber(number)){  
 **return** 1;  
 } **else**{  
 **return** 0;  
 }  
}  
  
**int** containsDigits(**int** number){  
 **if**(number % 10 > 4){  
 **return** 0;  
 }  
 **if**(number == 0){  
 **return** 1;  
 }  
 **return** containsDigits(number / 10);  
 }  
  
  
**int** main()  
{  
 **int** A, B;  
 scanf(**"%d%d"**,&A,&B);  
 **for**(**int** i=A ; i<=B ; i++){  
 **if**(isPalindrome(i) && containsDigits(i)){  
 printf(**"%d\n"**,i);  
 }  
 }  
 **return** 0;  
}

# 3.

#include **<stdio.h>  
  
int** divisbleByK(**int** number, **int** k){  
 **if**(number%k==0){  
 **return** 1;  
 } **else**{  
 **return** 0;  
 }  
}  
  
**int** nextDivisibleByK(**int** number, **int** k){  
 **if**(divisbleByK(number+1,k)){  
 **return** number+1;  
 }**else**{  
 **return** nextDivisibleByK(number+1, k);  
 }  
}  
  
**int** main()  
{  
 **int** k;  
 **int** A, B;  
 scanf(**"%d%d%d"**, &A,&B,&k);  
 **for** (A=A; A <= B; A++) {  
 printf(**"%d -> %d\n"**, A, nextDivisibleByK(A, k));  
 }  
 **return** 0;  
}