To find pow(x,n)%M using recursive approach::

#include <stdio.h>

int power(int n,unsigned int x);

int main()

{

int n,mod,i,res;

unsigned int x;

scanf("%d %d %d",&n,&x,&mod);

res=power(n,x);

res=res%mod;

printf("%d",res);

return 1;

}

int power(int n,unsigned int x)

{

int res=1;

if(x==0)

return 1;

else

x=x-1;

res=n\*power(n,x);

return res;

}