**public** **class** Rec {

**public** **static** **void** main(String[] args) {

*printReverse*(5);

System.***out***.println(*fib*(20));

*print*(5);

**int** a[] = {2,3,0,0,3,2};

System.***out***.println(*checkPal*(a,0,a.length));

String s = "aNaNaf";

System.***out***.println("Palindrom "+*isPalString*(s));

System.***out***.println(*reverseString*("Majdi"));

System.***out***.println(*reverse*("Majdi"));

}

**public** **static** **void** printReverse(**int** n){

**if** (n > 0)

*printReverse*(n-1);

System.***out***.println(n);

}

**public** **static** void print(**int** n)

{

**if** (n==0)

System.***out***.println(n);

**else**{

System.***out***.println(" "+n);

*print*(n-1);

}

}

**public** **static** int fib(**int** n)

{

**if** (n == 0 || n == 1)

**return** 1;

**else**

**return** *fib*(n-1)+*fib*(n-2);

}

**public** **static** boolean checkPal(**int** a[],**int** i, **int** j)

{

**if**(a.length == 0 || a.length == 1 || i>=j)

**return** **true**;

**if**(a[i] != a[j-1])

**return** **false**;

**return** *checkPal*(a, ++i, --j);

}

**public** **static** **boolean** isPalString(String s){

**if**(s.length() == 0 || s.length() == 1)

**return** **true**;

**if**(s.charAt(0) == s.charAt(s.length()-1))

**return** *isPalString*(s.substring(1, s.length()-1));

**return** **false**;

}

**private** **boolean** checkPrime(**int** n){

**if**(n > 1)

**return** \_checkPrime(n, 2);

**else**

**return** **false**;

}

**private** **boolean** \_checkPrime(**int** n, **int** m){

**if**(m == n)

**return** **true**;

**else**{

**if**(n % m == 0)

**return** **false**;

**else**

**return** \_checkPrime(n, m+1);

}

}

**public** **static** String reverseString(String s){

**if**(s.length() <= 1 || s == **null**)

**return** s;

**else**{

// str = str+s.charAt(s.length()-1);

**return** s.charAt(s.length()-1)+*reverseString*(s.substring(0,s.length()-1));

}

}

**public** **static** String reverse(String str) {

**if** ((**null** == str) || (str.length() <= 1)) {

**return** str;

}

**return** *reverse*(str.substring(1)) + str.charAt(0);

}

/\*reverse("Hello")

(reverse("ello")) + "H"

((reverse("llo")) + "e") + "H"

(((reverse("lo")) + "l") + "e") + "H"

((((reverse("o")) + "l") + "l") + "e") + "H"

(((("o") + "l") + "l") + "e") + "H"

"olleH"

\*/

**public** **static** **int** countZeros(**int**[] x, **int** len) {

**if** (len == 0)

**return** x[0] == 0 ? 1: 0;

**else** **if** (x[len] == 0)

**return** 1 + *countZeros*(x, len - 1);

**else**

**return** *countZeros*(x, len - 1);

}

**public** **static** **int** sumArray(**int**[ ] x, **int** index){

**if**(index < 0)

**return** 0;

**else** {

**return** x[index]+*sumArray*(x,index - 1);

}

}

**public** **static** **int** power(**int** base, **int** exponent)

{

**if**(exponent == 0)

**return** 1;

**else**

{

**return** base \* *power*(base, exponent - 1);

}

}

**public** **static** **int** gcd(**int** m, **int** n){

**if**(m % n == 0)

**return**(n);

**else**

**return**(*gcd*(n,m % n));

}

}