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Recursion HW #1

1)

Public static void main(){

System.out.println(“enter string”);

foo();  
}

public static void foo(){

char c = (char) System.in.read();

if (c == ‘.’) {

return;

}

else {

foo();

}

System.out.print(c);  
}

2)

**Definition:**

if c <= 0 then c = 0;

if c > 0 then (c,b) +1

**Method:**

public static int div(int a, int b) {

int c = a-b;

if(c<= 0) {

return 0;

}

else {

return div(c,b) + 1;

}

}

3)

public int power(int x , int n) {

int c;

if(n == 0){

return 1;

}

else if (n%2 == 0) {

c = power(x, n/2);

return x \* x;

}

}

4)   
**Definition:**

if n == 1 then n = 0

if n > 1 then 1 + (n/2)

**Method:**

public int foo (int n) {

if (n == 1) {

return 0;  
 }

else {

return 1 + foo(n/2);

}

}

The recursion method returns the value of 4;