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public class intRecursor {

    public static int product(int x, int y){

        if(y == 0)
            return 0;
        if(y > 0)
            return x + product(x, y-1);

        else
            return -x + product(x, y+1);
    }

    public static double power(int x, int y){

        if(y == 0)
            return 1;

        if(y > 0)
            return x * power(x, y-1);

        else
            return 1.0/x * power(x,y+1);
    }

    public static int fib(int x){

        if(x == 0)
            return 0;
        if(x == 1)
            return 1;

        return fib(x-1) + fib(x-2);
    }

    public static int gcd(int x, int y){

        if(x%y == 0)
            return y;

        return gcd(y,x%y);
    }

    public static void main(String [] args){

        System.out.println("5 * 4 = " + product(5,4));
        System.out.println("4 ^ 5 = " + power(4,2));
        System.out.println("Fibonacci of number 8: " + fib(8));
        System.out.println("GCD of 24 and 18 = " + gcd(24,18));
    }

}

```