public static long factorial(int N) {
    long f = 1;
    for (int i = 1; i <= N; i++) {
        f = f*i;
    }
    return f;
}

Write a recursive method factorial() to calculate n! where 0! = 1 and n! = n * (n-1)!

public static _______ factorial(__________________________) {
    // base case
    if (_______________)
        return _________;
    // reduction step
    return _______ * factorial(_______);
}

Recommended Book Exercises: 2.3.3 (trace by hand, then program it to see the correct answer), 2.3.8, 2.3.14, 2.3.22