

## Problem Set 4 Exercise #23: My Power Function

**Reference:** Lecture 12 notes

**Learning objective:** Recursion

**Estimated completion time:** 20 minutes

### Problem statement:

Write a program **my\_pow.c** to read **x** (a real number of **double** type) and **n** (a non-negative integer), and call a recursive function

```
double my_pow(double x, int n)
```

to compute  $x^n$ .

You should **NOT** use any loop structures (*for*, *while* or *do-while* loop) in your program.

### Sample run #1:

```
Enter x and n: 2 4
my_pow(2.0, 4) = 16.00
```

### Sample run #2:

```
Enter x and n: 2.5 2
my_pow(2.5, 2) = 6.25
```