

Problem 3. Exponential

Implement `myPow(double x, int n)` in `functions.cpp`, which calculates x raised to the power n (i.e., x^n).

Modify and submit `functions.cpp`. For tests, you can use `main.cpp`.

Compile command: `g++ -o main main.cpp functions.cpp -std=c++14`

Example 1:

```
>> ./main 2 10
>> 1024
>>
```

Example 2:

```
>> ./main 2.1 3
>> 9.261
>>
```

Example 3:

```
>> ./main 2 -2
>> 0.25
>>
```

Constraints:

$-100.0 < x < 100.0$

$-2^{31} \leq n \leq 2^{31}-1$

n is an integer.

Either x is not zero or $n > 0$.

$-10^4 \leq x^n \leq 10^4$