

## TP 1 - Partie 2 - Exercice 2 - I

```
1  #include <cassert>
2  #include <cmath>
3  #include <iostream>
4
5  #define SHOW(arg) std::cout << "Macro SHOW \"" #arg "\": " << (arg) << '\n';
6
7  double power(double x, int n) {
8      assert(n >= 0);
9      if (n == 0)
10         return 1;
11     if (n == 1)
12         return x;
13     double p{x};
14     for (int i{2}; i <= n; ++i)
15         p *= x;
16     return p;
17 }
18
19 int main() {
```

## TP 1 - Partie 2 - Exercice 2 - II

```
20     SHOW(power(2, 0))
21     SHOW(power(2, 1))
22     SHOW(power(2, 2))
23     SHOW(power(2, 3))
24     SHOW(std::pow(2, 0))
25     SHOW(std::pow(2, 1))
26     SHOW(std::pow(2, 2))
27     SHOW(std::pow(2, 3))
28 }
```

### Output:

```
1  Macro SHOW "power(2, 0)": 1
2  Macro SHOW "power(2, 1)": 2
3  Macro SHOW "power(2, 2)": 4
4  Macro SHOW "power(2, 3)": 8
5  Macro SHOW "std::pow(2, 0)": 1
6  Macro SHOW "std::pow(2, 1)": 2
7  Macro SHOW "std::pow(2, 2)": 4
8  Macro SHOW "std::pow(2, 3)": 8
```