Lab 6.3.12.4 Functions: part 4 - the whole function

Objectives

Familiarize the student with:

- Functions
- Function calls with parameters
- Function return values
- The *for*loop
- Printing on screen

Scenario

Check the program below. Write a function that is a simpler version of the *power* function. It takes two parameters, one of type *double* and one of type *int*. The first argument is the base and the second is the exponent. You can use a *for*loop to multiply the first argument as many times as the second argument says. Because it's a simple version, you are only required to handle positive integers and 0. Separate the declaration of the function from its full definition. Your version of the program must print the same result as the expected output.

```
#include <stdio.h>

/* your code */

int main(void)
{
 double twentyFiveValue = power(5.0, 2);
 double piSquaredValue = power(3.14159265, 2);
 double piCubedValue = power(3.14159265, 3);
 double bigPower = power(1.23, 20);
 double millionValue = power(10, 6);
 printf("Thirty five: %.4f\n", twentyFiveValue);
 printf("Pi squared: %.4f\n", piSquaredValue);
 printf("Pi cubed: %.4f\n", piCubedValue);
 printf("Not so big number: %.4f\n", bigPower);
 printf("Million: %.4f\n", millionValue);
 return 0;
}
/* your code */
```

Example output

```
Thirty five: 25.0000
Pi squared: 9.8696
Pi cubed: 31.0063
Not so big number: 62.8206
Million: 1000000.0000
```