Exercise 8

Overloading and Default Parameters

Overloading can become quite complicated, especially in conjunction with default parameters. So let’s start easy. All parameters will be `int`.

1. Define a `sum` function which adds two `int` parameters and returns the result.
   Overload the function with one which accepts three parameters.
2. What happens if `long sum(int, int)` is defined?
3. Set a default for the last parameter of `int sum(int,int,int)`.

Now we get to the intermediate level:

1. Define two functions `inv` which simply return the reciprocal of their parameter.
   One expects a `double` parameter, the other one expects a `long`.
2. What is the effect of: `inv(1L);`?
3. What is the effect of: `inv(1.0);`?
4. What is the effect of: `inv(1);`?

And now ...

1. Define a sum function for two double parameters.
2. What is the effect of: `sum( 1.0, 1 );`?

As we see, sometimes, it is hard to follow the compiler’s decisions.