- Exercise

Let's test your knowledge of automatic type deduction with this exercise.

WE'LL COVER THE FOLLOWING

Exercise 1

Let’s get used to the rules of implicit type casts by arithmetic operations. Call the `add` function that we studied earlier with different arguments and ask for the return type of each operation with `typeid`.

Here are a few examples:

```
std::cout << typeid( add(1, false) ).name() << std::endl;
std::cout << typeid( add('a', 1) ).name() << std::endl;
std::cout << typeid( add(false, false) ).name() << std::endl;
std::cout << typeid( add(true, 3.14) ).name() << std::endl;
std::cout << typeid( add(1, 4.0) ).name() << std::endl;
```

We can try out our work in the code widget below:

```
#include <iostream>
#include <typeinfo>

template<typename T1, typename T2>
auto add(T1 first, T2 second) -> decltype(first + second){
    return first + second;
}

int main(){
  // Write your code here
}
```

We’ll discuss the solution in the next lesson.