

Template Argument Deduction

The process used to determine the type of each function parameter from the arguments used in the function call is called **template argument deduction**.

None of the automatic arithmetic conversions that happen with normal functions take place, **except**:

- You may call a template having a **const** parameter with a non-const argument. Calling `print(str)` in the preceding section is an example of this.
- If the function parameter is a **pointer**, you **may** pass an **array**. For instance, this template will be used if you call it with an array as the first argument:

```
template <typename T>
T sum_array(const T* a, size_t len)
{
    T result{};
    for (size_t i = 0; i < len; ++i)
        result += a[i];
    return result;
}
```



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