Compiler Support

Let's look at the compiler support for the updates from C++17 with respect to templates.

Feature	GCC	Clang	MSVC
Template argument deduction for class templates	7.0/8.0[^gccimprov]	5.0	VS 2017 15.7
Deduction Guides in the Standard Library	8.0[^gccguides]	7.0/in progress[^clang deductionprogress]	VS 2017 15.7
Declaring non-type template parameters with auto	7.0	4.0	VS 2017 15.7
Fold expressions	6.0	3.9	VS 2017 15.5
`if constexpr`	7.0	3.9	VS 2017

[^gccimprov]: Additional improvements for Template Argument Deduction for Class Templates happened in GCC 8.0, P0512R0. [^gccguides]: Deduction Guides are not listed in the status pages of LibSTDC++, so we can assume they were implemented as part of Template argument deduction for class templates. [^clangdeductionprogress]: The status page for LibC++ mentions

that `<string>`, sequence containers, container adaptors and `<regex>` portions have been implemented so far.

In the next chapter, we will look at some general language features.