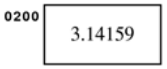
Global Variables

Global variables—usually constants in this class—are allocated in the static storage area. Thus, if the compiler sees the definition below (outside of any function), it reserves eight bytes in the static area, and stores the literal value when the **program is compiled.**

```
const double kPi = 3.14159;
```

As a programmer, you have no idea **what** address the compiler will choose, but it often helps you to visualize what is happening if you make up an address and use that in a diagram. Here you might imagine that the constant **`kPi`** is stored in the address **`0200`**.



Most platforms support a much more accurate value for **`PI`**. We can calculate that value using the expression **`acos(-1.0)` at run-time**.

```
const auto kPi = acos(-1.0);
```

This produces the following output when printed with 16 digits of precision:

```
kPI->3.1415926535897931
```