



IDENTITIES

Why

We can give the same object two different names.

Definition

An object *is* itself. If the object denoted by one name is the same as the object denoted by a second name, then we say that the two names are *equal*. The object associated with a *name* is the *identity* of the name.

Let A denote an object and let B denote an object. Here we are using A and B as placeholders. They are names for objects, but we do not know—or care—which objects. We say “ A equals B ” as a shorthand for “the object denoted by A is the same as the object denoted by B ”. In other words, A and B are two names for the same object.

Symmetry

“ A equals B ” means the same as “ B equals A ”. This is because the identity of the object is not changed by the order in which the names are given.

This fact is called the *symmetry of identity*. It is obvious. Not subtle in the slightest. We can switch the spots of A and B and say the same thing. There are two ways to say the same thing.

Reflexivity

Let A denote an object. Since every object is the same as itself, the object denoted by A is the same as the object denoted by A . We say “ A equals A ”. In other words, every name equals itself.

This fact is called the *reflexivity of identity*. It too is obvious. And not subtle. We can always declare that the same symbol denotes the same object. We agreed upon this in *Names*.

Identities



Objects