Section 3.5 Composite Functions

Objective 4: Forming and Evaluating Composite Functions

Definition*:** Given functions *f* and *g,* the **composite function**, $f \circ g$ (also called the **composition of *f* and *g) is defined by $(f \circ g)(x) = f(g(x))$ provided $g(x)$ is in the domain of *f*.

The composition of *f* and *g* does not equal the product of *f* and *g*: $(f \circ g)(x) \neq fg(x)$. Also, the composition of *f* and *g* does not necessarily equal the composition of *g* and *f* though this equality does exist for certain pairs of functions.