




function composition

$$f(x) =$$
A cartoon illustration of Daffy Duck, a brown duck with a large white belly, standing and looking forward.

$$g(x) =$$
A cartoon illustration of Elmer Fudd, a red, round, bird-like character with a large white belly, standing and looking forward.

$$f(g(x)) =$$
A cartoon illustration of a red Daffy Duck, which is Daffy Duck with a red body and a large white belly, standing and looking forward.

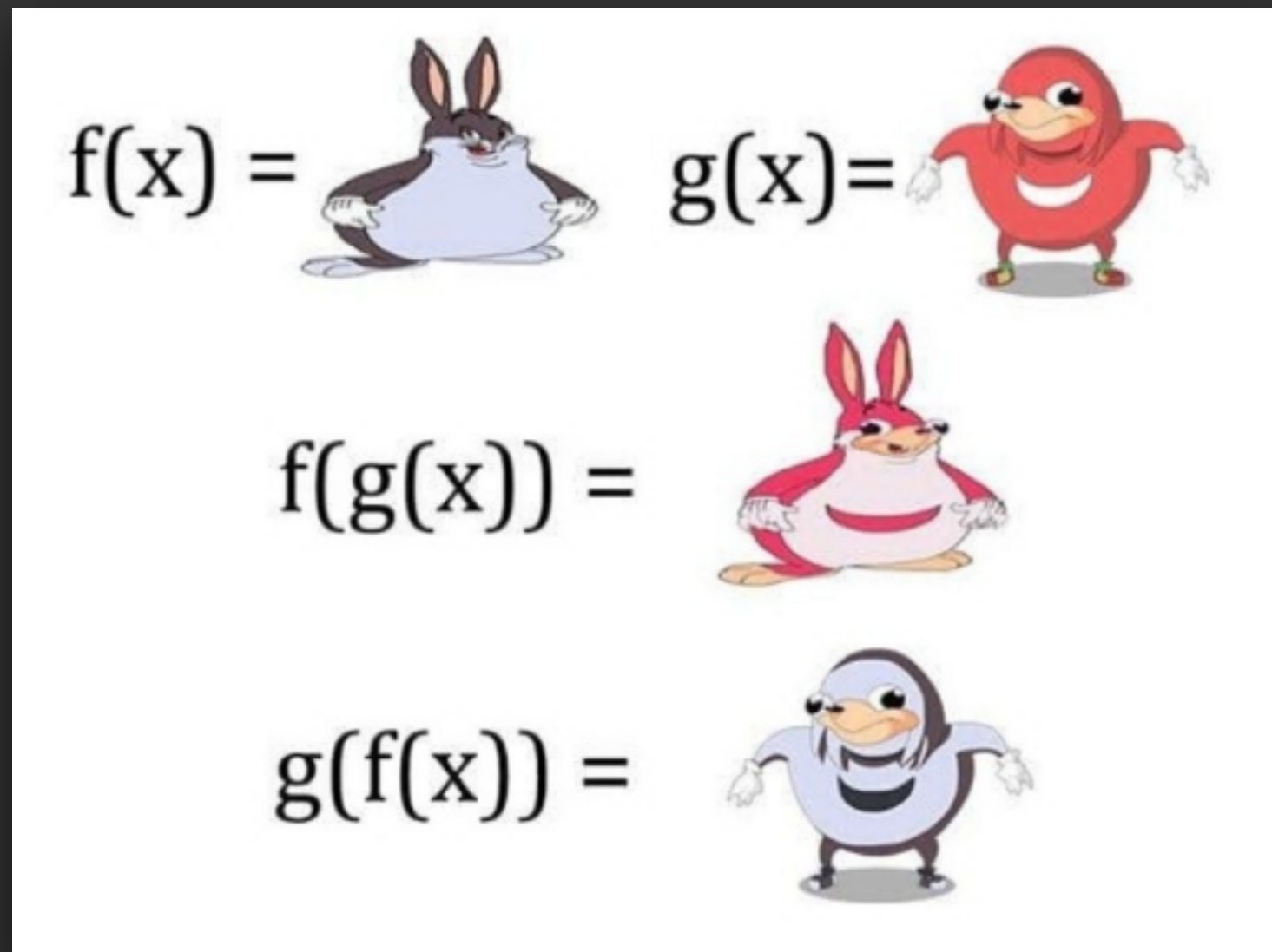
$$g(f(x)) =$$
A cartoon illustration of a blue Elmer Fudd, which is Elmer Fudd with a blue body and a large white belly, standing and looking forward.

composition

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Let $f: A \rightarrow B$ and $g: C \rightarrow D$. The **composition** of g with f , denoted $g \circ f$, is the function from A to D defined by $g \circ f(x) = g(f(x))$.

- chaining multiple functions: "*g composed with f*"
- order matters!



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