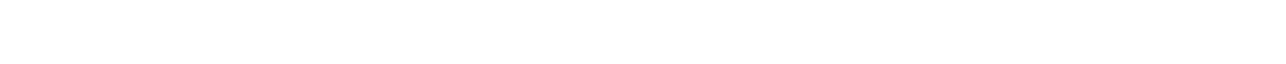


## function composition





















## function composition

## example

Consider function decomposition of the following two functions

$$f(x) = 2x + 3$$

$$g(x) = x^2$$

### Composition 1: g o f

- 1. First f(x) = 2x + 3
- 2. Then  $g(f(x)) = (2x + 3)^2$

#### Composition 2: $f \circ g$

- 1. First  $g(x) = x^2$
- 2. Then  $f(g(x)) = 2(x^2) + 3 = 2x^2 + 3$

exercise 3 use specific value x=2 in the example

# function composition