

**Exercise 8**

In Exercises 7–10, write a formula for  $f \circ g \circ h$ .

$$f(x) = 3x + 4, \quad g(x) = 2x - 1, \quad h(x) = x^2$$

---

**Solution**

Evaluate the function composition.

$$\begin{aligned} f \circ g \circ h &= f(g(h(x))) \\ &= f(g(x^2)) \\ &= f(2x^2 - 1) \\ &= 3(2x^2 - 1) + 4 \\ &= 6x^2 - 3 + 4 \\ &= 6x^2 + 1 \end{aligned}$$