

	$f \circ g = f(g(x)) =$	$g \circ f = g(f(x)) =$
$f(x) = x^2; \quad g(x) = 3x$	$(3x)^2 = 9x^2$	$3x^2$
$f(x) = \sin x; \quad g(x) = x^2$	$\sin(x^2)$	$(\sin x)^2$
$f(x) = \cos x; \quad g(x) = 2x + 1$	$\cos(2x + 1)$	$2 \cdot \cos x + 1$
$f(x) = x^4; \quad g(x) = \sin x$	$(\sin x)^4$	$\sin(x^4)$
$f(x) = 2x + 4; \quad g(x) = x^2$	$2x^2 + 4$	$(2x + 4)^2$
$f(x) = \frac{1}{x}; \quad g(x) = \sqrt{5x^2}$	$\frac{1}{\sqrt{5x^2}}$	$\sqrt{5 \left(\frac{1}{x}\right)^2} = \sqrt{5 \frac{1}{x^2}}$
$f(x) = \sqrt{x^2 - 1};$ $g(x) = \sqrt{x^2 - 1}$	$\sqrt{(\sqrt{x^2 - 1})^2 - 1}$ $= \sqrt{x^2 - 2}$	$\sqrt{x^2 - 2}$
$f(x) = x^3; \quad g(x) = \frac{x + 1}{x - 2}$	$\left(\frac{x + 1}{x - 2}\right)^3$	$\frac{x^3 + 1}{x^3 - 2}$