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$f(x) = x^2 + 1$

$g(x) = x^2 - 3$

$$a) (f \circ g)(x) = f(g(x)) = f(x^2 - 3) = (x^2 - 3)^2 + 1 =$$

$$= x^4 - 6x^2 + 10$$

$$b) (g \circ f)(x) = g(f(x)) = g(x^2 + 1) = (x^2 + 1)^2 - 3 =$$

$$= x^4 + 2x^2 - 2$$

$$c) (f \circ g)(2) = f(g(2)) = f(1) = 1^2 + 1 = 2$$

$$g(2) = 2^2 - 3 = 1$$

or

$$= 2^4 - 6 \cdot 2^2 + 10 = 16 - 24 + 10 = 2$$

$$d) (g \circ f)(2) = g(f(2)) = g(5) = 5^2 - 3 = 22$$

$$f(2) = 2^2 + 1 = 5$$

or

$$= 2^4 + 2 \cdot 2^2 - 2 = 16 + 8 - 2 = 22$$