If $f(x) = 4x$, $g(x) = 2x - 1$, and $h(x) = x^2 + 1$,

34. $f[g(-1)]$

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

$f[g(-1)] = f(-3) = 4(-3) = \boxed{-12}$

42. $[g \circ (f \circ h)](3)$

$h(3) = 3^2 + 1 = 10$

$f[h(3)] = f(10) = 4(10) = 40$

$g(f[h(3)]) = g(40) = 2(40) - 1 = \boxed{79}$

30. $g(x) = x + 2$

$\quad\quad h(x) = x^2$

$$[g \circ h](x) = g[h(x)] = g(x^2) = x^2 + 2$$

$$[h \circ g](x) = h[g(x)] = h(x+2) = (x+2)^2$$

$$= (x+2)(x+2)$$

$$[h \circ g](x) = x^2 + 4x + 4$$

relation   inverse
(2, 3)   (3, 2)
(0, 5)   (5, 0)
(3, 0)   (0, 3)
(-1, -4)   (-4, -1)
(-2, 3)   (3, -2)
(-3, -3)   (-3, -3)
(4, 2)   (2, 4)

$Y = x$

Y

X