

**1.13**

$$1) (f \circ g)(x) = f(g(x)) = f(x - 2) = 3(x - 2) = 3x - 6$$

$$2) (g \circ f)(x) = g(f(x)) = g(3x) = 3x - 2$$

$$3) (f \circ f)(x) = f(f(x)) = f(3x) = 3 \cdot 3x = 9x$$

$$4) (f \circ g \circ h)(x) = f(g(h(x))) = f(g(2x - 3)) = f((2x - 3) - 2) = f(2x - 5) = 3(2x - 5) = 6x - 15$$

$$5) (g \circ f \circ h)(x) = g(f(h(x))) = g(f(2x - 3)) = g(3(2x - 3)) = g(6x - 9) = (6x - 9) - 2 = 6x - 11$$

$$6) (h \circ g \circ h)(x) = h(g(h(x))) = h(g(2x - 3)) = h((2x - 3) - 2) = h(2x - 5) = 2(2x - 5) - 3 = 4x - 13$$