Function Operations

Procedure

Perform the indicated operation.

Find the following compositions

1. $f(x) = 3x + 4$, $g(x) = 2x + 5$. Find $f(g(x))$
2. $h(x) = 2x + 1$, $t(x) = 3x – 4$. Find $h(t(x))$
3. $l(x) = x^2 – 1$, $p(x) = x + 1$, find $l(p(x))$
4. $f(x) = 2x$, $g(x) = 3x – 1$, find $f(g(x))$
5. $h(x) = x + 2$, $m(x) = x + 3$, find $h(m(x))$
6. In # 5, find $m(h(x))$
7. Find $f(g(x))$ and $g(f(x))$. $f(x) = x + 2$, $g(x) = x – 2$
8. Find $h(g(x))$ and $g(h(x))$. $h(x) = 2x + 3$, $g(x) = ½(x – 3)$
9. Find $t(p(x))$ and $p(t(x))$. $t(x) = – 3x + 1$, $p(x) = –1/3(x – 1)$