

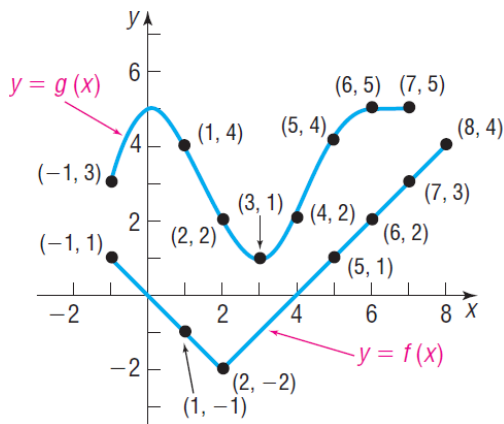
7.3 - COMPOSITION OF FUNCTIONS

The functions $f(x)$ & $g(x)$ are defined by the following table. Use the table to evaluate each composite function.

x	-3	-2	-1	0	1	2	3
f(x)	11	9	7	5	3	1	-1
g(x)	-8	-3	0	1	0	-3	-8

1. $f(g(1))$
2. $g(f(1))$
3. $g(f(3))$
4. $f(g(-2))$

The functions $f(x)$ & $g(x)$ are defined by the following graphs. Use the graphs to evaluate each composite function.



5. $g(f(-1))$
6. $f(g(-1))$
7. $f(g(4))$
8. $g(f(0))$

Problems 9 – 16, use the following functions:

$$f(x) = x - 6 \quad g(x) = \sqrt{6 - 2x} \quad h(x) = 3x^2 - 7 \quad j(x) = x^2 + 8x - 7 \quad k(x) = \frac{5x + 3}{x - 6} \quad m(x) = 4x + 1$$

9. Evaluate: $m(k(3))$
10. Evaluate: $f(g(-5))$
11. Evaluate: $f(j(-2))$
12. Evaluate: $g(h(-1))$
13. Find: $g(f(x))$
14. Find: $k(m(x))$
15. Find: $j(f(x))$
16. Find: $h(g(x))$