

Composition of Functions

Perform the indicated operation.

1) $g(x) = 2x + 5$
 $h(x) = x^2 + 2$
Find $g(h(x))$

2) $h(n) = n + 5$
 $g(n) = n^2 + 5$
Find $h(g(n))$

3) $f(x) = 4x + 3$
 $g(x) = 4x + 1$
Find $f(g(x))$

4) $h(t) = 2t - 2$
 $g(t) = t^2 + 4$
Find $h(g(t))$

5) $g(x) = 3x + 1$
 $h(x) = x^2 + 5$
Find $g(h(x))$

6) $g(x) = 3x + 4$
 $h(x) = x^2 - 1$
Find $g(h(x))$

7) $h(a) = 2a$
 $g(a) = a^2 + 3a$
Find $h(g(a))$

8) $g(t) = 3t - 5$
 $f(t) = t^2 - 2$
Find $g(f(t))$

9) $h(x) = 3x + 4$
 $g(x) = 2x - 1$
Find $h(g(8))$

10) $g(n) = n + 5$
 $f(n) = 3n^2 - 5n$
Find $g(f(-1))$

11) $h(t) = t + 3$
 $g(t) = t^2 - 4$
Find $h(g(-1))$

12) $g(x) = x - 4$
 $h(x) = 4x$
Find $g(h(10))$

13) $f(x) = 2x + 4$
 $g(x) = 2x^2 - 2x$
Find $f(g(-5))$

14) $g(x) = 4x - 2$
 $h(x) = -2x + 3$
Find $g(h(10))$

15) $h(x) = x + 4$
 $g(x) = 2x - 2$
Find $h(g(7))$

16) $g(n) = n - 2$
 $f(n) = 3n + 4$
Find $g(f(4))$

Composition of Functions

Date _____ Period _____

Perform the indicated operation.

1) $g(x) = 2x + 5$
 $h(x) = x^2 + 2$
Find $g(h(x))$

$$2x^2 + 9$$

2) $h(n) = n + 5$
 $g(n) = n^2 + 5$
Find $h(g(n))$

$$n^2 + 10$$

3) $f(x) = 4x + 3$
 $g(x) = 4x + 1$
Find $f(g(x))$

$$16x + 7$$

4) $h(t) = 2t - 2$
 $g(t) = t^2 + 4$
Find $h(g(t))$

$$2t^2 + 6$$

5) $g(x) = 3x + 1$
 $h(x) = x^2 + 5$
Find $g(h(x))$

$$3x^2 + 16$$

6) $g(x) = 3x + 4$
 $h(x) = x^2 - 1$
Find $g(h(x))$

$$3x^2 + 1$$

7) $h(a) = 2a$
 $g(a) = a^2 + 3a$
Find $h(g(a))$

$$2a^2 + 6a$$

8) $g(t) = 3t - 5$
 $f(t) = t^2 - 2$
Find $g(f(t))$

$$3t^2 - 11$$

9) $h(x) = 3x + 4$
 $g(x) = 2x - 1$
Find $h(g(8))$

49

10) $g(n) = n + 5$
 $f(n) = 3n^2 - 5n$
Find $g(f(-1))$

13

11) $h(t) = t + 3$
 $g(t) = t^2 - 4$
Find $h(g(-1))$

0

12) $g(x) = x - 4$
 $h(x) = 4x$
Find $g(h(10))$

36

13) $f(x) = 2x + 4$
 $g(x) = 2x^2 - 2x$
Find $f(g(-5))$

124

14) $g(x) = 4x - 2$
 $h(x) = -2x + 3$
Find $g(h(10))$

-70

15) $h(x) = x + 4$
 $g(x) = 2x - 2$
Find $h(g(7))$

16

16) $g(n) = n - 2$
 $f(n) = 3n + 4$
Find $g(f(4))$

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