

6.5A Function Operations

Date _____ Period _____

Perform the indicated operation.

1) $g(t) = -4t$
 $h(t) = 3t - 3$
 Find $g(t) - h(t)$

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

3) $f(a) = 3a$
 $g(a) = a^3 + 3a^2$
 Find $f(a) \cdot g(a)$

4) $f(a) = -4a - 1$
 $g(a) = a^3 - 1$
 Find $f(a) + g(a)$

5) $g(t) = t^3 + 2$
 $f(t) = 2t - 5$
 Find $g(t) \div f(t)$

6) $g(a) = -3a + 5$
 $h(a) = a^2 - 5a$
 Find $g(a) \cdot h(a)$

7) $g(t) = -3t^3 + t$
 $f(t) = 2t$
 Find $(g - f)(t)$

8) $g(n) = 2n^3 - 4n$
 $h(n) = 2n + 4$
 Find $(g - h)(n)$

9) $f(n) = -3n + 2$
 $g(n) = n + 5$
 Find $(f \cdot g)(n)$

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

11) $g(a) = 3a + 2$
 $f(a) = -4a + 1$
 Find $\left(\frac{g}{f}\right)(a)$

12) $g(t) = 3t - 2$
 $h(t) = -2t^2 + 5$
 Find $(g \cdot h)(t)$

13) $g(n) = 3n - 5$
 $f(n) = 2n - 2$
 Find $(g \cdot f)(5)$

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

15) $h(a) = 2a + 2$
 $g(a) = 2a - 3$
 Find $\left(\frac{h}{g}\right)(-9)$

16) $g(n) = 3n + 2$
 $h(n) = -n^3 + 5n$
 Find $(g + h)(0)$

6.5A Function Operations

Date _____ Period _____

Perform the indicated operation.

1) $g(t) = -4t$
 $h(t) = 3t - 3$
 Find $g(t) - h(t)$

$$-7t + 3$$

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

$$6x + 2$$

3) $f(a) = 3a$
 $g(a) = a^3 + 3a^2$
 Find $f(a) \cdot g(a)$

$$3a^4 + 9a^3$$

4) $f(a) = -4a - 1$
 $g(a) = a^3 - 1$
 Find $f(a) + g(a)$

$$a^3 - 4a - 2$$

5) $g(t) = t^3 + 2$
 $f(t) = 2t - 5$
 Find $g(t) \div f(t)$

$$\frac{t^3 + 2}{2t - 5}$$

6) $g(a) = -3a + 5$
 $h(a) = a^2 - 5a$
 Find $g(a) \cdot h(a)$

$$-3a^3 + 20a^2 - 25a$$

7) $g(t) = -3t^3 + t$
 $f(t) = 2t$
 Find $(g - f)(t)$

$$-3t^3 - t$$

8) $g(n) = 2n^3 - 4n$
 $h(n) = 2n + 4$
 Find $(g - h)(n)$

$$2n^3 - 6n - 4$$

9) $f(n) = -3n + 2$
 $g(n) = n + 5$
 Find $(f \cdot g)(n)$

$$-3n^2 - 13n + 10$$

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

$$2x^3 + 2x - 2$$

11) $g(a) = 3a + 2$
 $f(a) = -4a + 1$
 Find $\left(\frac{g}{f}\right)(a)$

$$\frac{3a + 2}{-4a + 1}$$

12) $g(t) = 3t - 2$
 $h(t) = -2t^2 + 5$
 Find $(g \cdot h)(t)$

$$-6t^3 + 4t^2 + 15t - 10$$

13) $g(n) = 3n - 5$
 $f(n) = 2n - 2$
 Find $(g \cdot f)(5)$

$$80$$

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

$$6$$

15) $h(a) = 2a + 2$
 $g(a) = 2a - 3$
 Find $\left(\frac{h}{g}\right)(-9)$

$$\frac{16}{21}$$

16) $g(n) = 3n + 2$
 $h(n) = -n^3 + 5n$
 Find $(g + h)(0)$

$$2$$