

Assignment

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Perform the indicated operation.

1) $g(t) = t^2 - 3t$

$f(t) = 4t - 3$

Find $(g + f)(t)$

2) $g(a) = 3a + 3$

$h(a) = a^3 + a$

Find $(g - 5h)(a)$

3) $h(a) = 3a - 3$

$g(a) = a^2 - 4$

Find $(2h + 2g)(a)$

4) $f(x) = 4x - 3$

$g(x) = -2x^3 + 4$

Find $(-3f + 2g)(x)$

5) $g(a) = 3a + 5$
 $f(a) = a^2 - 4a$
Find $(2g - f)(a)$

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

7) $h(n) = 3n - 5$
 $g(n) = n^3 - 3n^2$
Find $(h - g)(n)$

8) $g(a) = 4a + 1$
 $h(a) = 3a$
Find $(g - h)(a)$

9) $f(n) = -4n + 3$
 $g(n) = 3n^3 + 5n^2$
Find $(f - g)(n)$

10) $f(t) = 3t - 1$
 $g(t) = t + 1$
Find $(3f - 4g)(t)$

11) $g(x) = x^2 + 1$
 $h(x) = -2x - 2$
Find $(g \cdot h)(x)$

12) $f(n) = n^3 + n^2$
 $g(n) = 4n - 4$
Find $(4f + 5g)(n)$

13) $g(n) = 2n + 1$
 $f(n) = 2n$
Find $(g \cdot f)(n)$

14) $g(a) = 2a + 5$
 $f(a) = 4a - 4$
Find $(5g + 2f)(a)$

15) $h(n) = 4n - 5$
 $g(n) = 2n - 2$
Find $(3h - 3g)(n)$

16) $g(a) = a + 5$
 $h(a) = a^2 + 2a$
Find $\left(\frac{g}{h}\right)(a)$

17) $g(x) = 3x$
 $h(x) = 2x^2 - 1$

Find $\left(\frac{g}{h}\right)(x)$

18) $g(x) = 4x + 1$
 $h(x) = x^3 + 5$

Find $\left(\frac{g}{h}\right)(x)$

19) $f(x) = -x^3 - 2x^2 + 2x$
 $g(x) = 4x + 3$

Find $\left(\frac{f}{g}\right)(x)$

20) $f(x) = -2x + 4$
 $g(x) = x^2 + x$

Find $\left(\frac{f}{g}\right)(x)$

21) $f(x) = -3x - 3$
 $g(x) = x^3 - 1$
Find $(f - g)(0)$

22) $f(a) = a^3 - 2a$
 $g(a) = 3a - 3$
Find $(f - g)(6)$

23) $f(x) = 3x - 2$
 $g(x) = 3x + 4$
Find $(3f + 3g)(9)$

24) $f(x) = 3x + 3$
 $g(x) = x^2 - 2x$
Find $(f \cdot g)(4)$

25) $f(t) = 4t - 3$
 $g(t) = t + 1$
Find $\left(\frac{f}{g}\right)(5)$

Answers to Assignment (ID: 1)

1) $t^2 + t - 3$

5) $-a^2 + 10a + 10$

9) $-3n^3 - 5n^2 - 4n + 3$

12) $4n^3 + 4n^2 + 20n - 20$

15) $6n - 9$

19) $\frac{-x^3 - 2x^2 + 2x}{4x + 3}$

23) 168

2) $-5a^3 - 2a + 3$

6) $x^3 - 4x - 3$

10) $5t - 7$

13) $4n^2 + 2n$

16) $\frac{a + 5}{a^2 + 2a}$

20) $\frac{-2x + 4}{x^2 + x}$

24) 120

3) $2a^2 + 6a - 14$

7) $-n^3 + 3n^2 + 3n - 5$

11) $-2x^3 - 2x^2 - 2x - 2$

14) $18a + 17$

17) $\frac{3x}{2x^2 - 1}$

21) -2

25) $\frac{17}{6}$

4) $-4x^3 - 12x + 17$

8) $a + 1$

18) $\frac{4x + 1}{x^3 + 5}$

22) 189