Algebra 2 Name_____ ID: 1

Assignment

Date_____ Period____

Perform the indicated operation.

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

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

3) $g(n) = n^3 + n^2$
$h(n) = 4n - 5$
Find $\left(\frac{g}{h}\right)(4)$

4) $h(t) = t + 4$
$g(t) = 2t - 1$
Find $(h \cdot g)(-7)$

5) $g(n) = 4n - 1$
$h(n) = n^2 + 4$
Find $g(h(1))$

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

7) $h(n) = n^2 + 4n$
$g(n) = 4n + 3$
Find $h(n) \div g(n)$

8) $g(t) = 4t$
Find $(g \circ g)(t)$

9) $g(n) = -4n + 3$
$f(n) = n + 2$
Find $g(n) \div f(n)$

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

11) $h(x) = x^2 - 4x$
$g(x) = 4x - 5$
Find $h(g(x))$

12) $h(x) = 4x - 2$
$g(x) = x^3 - 1$
Find $\left(\frac{h}{g}\right)(x)$

Find the inverse of each function.

13) $g(n) = \frac{-5 + n}{5}$

14) $g(x) = \sqrt[3]{x} + 1$

15) $f(x) = 2x + 2$

16) $f(x) = 2(x + 1)^3$

17) $f(x) = 3 - \frac{7}{2}x$

18) $f(x) = -\frac{1}{4}x + \frac{1}{4}$

19) $g(n) = -9n + 4$

20) $f(x) = \sqrt[3]{x + 1} - 2$

Answers to Assignment (ID: 1)

1) -33

2) -16

3) $\frac{80}{11}$

4) 45

5) 19

6) -88

7) $\frac{n^2 + 4n}{4n + 3}$

8) $16t$

9) $\frac{-4n + 3}{n + 2}$

10) $x^2 - x + 10$

11) $16x^2 - 56x + 45$

12) $\frac{4x - 2}{x^3 - 1}$

13) $g^{-1}(n) = 5n + 5$

14) $g^{-1}(x) = (x - 1)^3$

15) $f^{-1}(x) = \frac{x - 2}{2}$

16) $f^{-1}(x) = \frac{-2 + \sqrt[3]{4x}}{2}$

17) $f^{-1}(x) = -\frac{2}{7}x + \frac{6}{7}$

18) $f^{-1}(x) = -4x + 1$

19) $g^{-1}(n) = \frac{-n + 4}{9}$

20) $f^{-1}(x) = -1 + (x + 2)^3$