Pre-Calculus Name_____ ID: 1

Assignment

Date_____ Period____

Perform the indicated operation.

1) $h(x) = -2x - 5$
$g(x) = x + 4$
Find $\left(\frac{h}{g}\right)(x)$

2) $g(n) = 4n + 1$
$h(n) = 3n^2 - 4n$
Find $(g \cdot h)(n)$

3) $g(t) = 4t + 3$
$h(t) = t^2 + 2$
Find $(g \cdot h)(t)$

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

5) $h(t) = 4t - 3$
$g(t) = 2t - 4$
Find $(h + g)(t)$

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

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

8) $f(n) = -2n + 4$
$g(n) = n^2 + 1$
Find $(f - g)(n)$

9) $g(x) = -3x - 1$
$f(x) = 4x + 5$
Find $(g \cdot f)(x)$

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

11) $g(n) = 3n + 1$
$h(n) = n - 1$
Find $\left(\frac{g}{h}\right)(n)$

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

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

14) $h(x) = 2x - 2$
$g(x) = x + 2$
Find $(h \cdot g)(x)$

15) $g(n) = 4n + 5$
$h(n) = 3n + 1$
Find $\left(\frac{g}{h}\right)(n)$

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

17) $g(x) = -x^3 - 5$
$f(x) = x - 5$
Find $(g + f)(x)$

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

19) $h(n) = -n^3 - n^2$
$g(n) = 2n + 1$
Find $(h - g)(n)$

20) $g(n) = 4n - 5$
$f(n) = n^3 - 4n$
Find $(g \cdot f)(n)$

21) $f(n) = -n + 5$
$g(n) = 3n + 1$
Find $(f + g)(-9)$

22) $f(x) = 4x + 1$
$g(x) = x^3 + 3$
Find $(f \cdot g)(2)$

23) $g(n) = 4n - 1$
$f(n) = n^3 + 4n$
Find $(g + f)(2)$

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

25) $g(x) = x^2 + 3x$
$h(x) = 3x + 4$
Find $(g - h)(5)$

26) $g(a) = 3a + 1$
$f(a) = a^2 + 2a$
Find $\left(\frac{g}{f}\right)(-8)$

27) $h(x) = 3x - 1$
$g(x) = 2x^3 - 2$
Find $(h \cdot g)(-1)$

28) $h(n) = 2n + 2$
$g(n) = 2n - 5$
Find $(h - g)(-2)$

29) $g(n) = 2n - 2$
$f(n) = n^3 - n$
Find $(g - f)(-6)$

30) $g(a) = -a^3 - 4$
$h(a) = 4a - 4$
Find $(g - h)(-5)$

31) $g(t) = 3t - 2$
$h(t) = t^2 - 1$
Find $(g + h)(5)$

32) $f(x) = x + 5$
$g(x) = x^2 + 5$
Find $\left(\frac{f}{g}\right)(6)$

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

34) $g(x) = x^3 + 4x^2$
$h(x) = 3x + 3$
Find $\left(\frac{g}{h}\right)(3)$

35) $f(t) = 2t - 2$
$g(t) = t^3 + t^2$
Find $(f - g)(0)$

36) $f(x) = 2x + 2$
$g(x) = 3x + 1$
Find $(f \cdot g)(-5)$

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

38) $g(a) = 3a + 5$
$h(a) = 3a + 2$
Find $(g + h)(-6)$

39) $g(n) = 2n - 1$
$h(n) = 4n + 5$
Find $(g \cdot h)(2)$

40) $g(x) = x^2 + 3$
$h(x) = 2x + 1$
Find $\left(\frac{g}{h}\right)(8)$

41) $g(n) = n^3 - 2n$
Find $(g \circ g)(n)$

42) $g(x) = 2x$
$h(x) = x^2 + 5x$
Find $(g \circ h)(x)$

43) $f(n) = -n^2 + n$
$g(n) = 4n - 1$
Find $(f \circ g)(n)$

44) $g(n) = 2n$
$f(n) = 4n + 3$
Find $(g \circ f)(n)$

45) $f(n) = 4n - 5$
$g(n) = -n^2 - 3n$
Find $(f \circ g)(n)$

46) $g(a) = 3a + 2$
$f(a) = a^2 - 2 + 2a$
Find $(g \circ f)(a)$

47) $g(x) = -x - 1$
$h(x) = 4x - 1$
Find $(g \circ h)(x)$

48) $f(t) = 3t + 5$
$g(t) = t^2 + 1$
Find $(f \circ g)(t)$

49) $g(x) = 2x$
$h(x) = x^2 - 5$
Find $(g \circ h)(x)$

50) $f(a) = a^2 + 3 + 2a$
$g(a) = a + 5$
Find $(f \circ g)(a)$

51) $g(n) = -2n^2 + 2n$
$f(n) = 2n + 1$
Find $(g \circ f)(n)$

52) $f(n) = 2n - 4$
Find $(f \circ f)(n)$

53) $g(n) = 3n - 5$
Find $(g \circ g)(n)$

54) $g(a) = a^2 - 5$
$h(a) = 3a + 5$
Find $(g \circ h)(a)$

55) $g(a) = -2a + 3$
$h(a) = 4a - 3$
Find $(g \circ h)(a)$

56) $g(n) = 4n - 2$
$h(n) = n^2 + 5$
Find $(g \circ h)(n)$

57) $h(x) = x^2 - 1$
$g(x) = 3x - 1$
Find $(h \circ g)(x)$

58) $g(a) = -4a - 3$
$f(a) = -a$
Find $(g \circ f)(a)$

59) $f(x) = x^2 + 5x$
$g(x) = x + 2$
Find $(f \circ g)(x)$

60) $f(x) = -x + 3$
$g(x) = x^3 - 2x^2$
Find $(f \circ g)(x)$

61) $g(x) = 4x - 1$
$f(x) = x^3 + 2x$
Find $(g \circ f)(-2)$

62) $g(a) = a - 5$
$h(a) = -a^2 - 2a$
Find $(g \circ h)(5)$

63) $g(x) = 3x + 3$
$h(x) = x^2 - 4x$
Find $(g \circ h)(7)$

64) $h(t) = t + 5$
$g(t) = 2t^2 + 5t$
Find $(h \circ g)(-5)$

65) $g(n) = n + 4$
Find $(g \circ g)(2)$

66) $h(t) = 3t - 3$
Find $(h \circ h)(-9)$

67) $g(n) = 2n - 4$
$f(n) = 4n + 3$
Find $(g \circ f)(-3)$

68) $f(n) = n + 1$
$g(n) = 3n - 3$
Find $(f \circ g)(3)$

69) $g(x) = x - 5$
$h(x) = x^3 + 3x^2$
Find $(g \circ h)(-2)$

70) $g(t) = 4t - 3$
$f(t) = t^3 - t^2 + t$
Find $(g \circ f)(-2)$

71) $g(n) = n^2 + 4$
$f(n) = 3n - 5$
Find $(g \circ f)(5)$

72) $h(n) = 3n - 4$
$g(n) = -2n + 3$
Find $(h \circ g)(-3)$

73) $g(n) = 4n - 3$
$h(n) = 4n + 1$
Find $(g \circ h)(-7)$

74) $f(x) = 4x + 5$
$g(x) = -3x^2 - 5x$
Find $(f \circ g)(-3)$

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

76) $f(t) = 3t - 2$
Find $(f \circ f)(-9)$

77) $g(t) = -t - 5$
$f(t) = t^2 + t$
Find $(g \circ f)(-4)$

78) $g(n) = -n - 2$
$h(n) = 3n - 5$
Find $(g \circ h)(-10)$

79) $f(x) = 2x$
$g(x) = -2x - 5$
Find $(f \circ g)(2)$

80) $g(x) = 3x - 4$
$h(x) = 4x + 4$
Find $(g \circ h)(2)$

Pre-Calculus Name_____ ID: 1

Assignment

Date_____ Period____

Perform the indicated operation.

1) $h(x) = -2x - 5$
$g(x) = x + 4$
Find $\left(\frac{h}{g}\right)(x)$
$\frac{-2x - 5}{x + 4}$

2) $g(n) = 4n + 1$
$h(n) = 3n^2 - 4n$
Find $(g \cdot h)(n)$
$12n^3 - 13n^2 - 4n$

3) $g(t) = 4t + 3$
$h(t) = t^2 + 2$
Find $(g \cdot h)(t)$
$4t^3 + 3t^2 + 8t + 6$

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

5) $h(t) = 4t - 3$
$g(t) = 2t - 4$
Find $(h + g)(t)$
$6t - 7$

6) $g(x) = x^2 - 4x$
$f(x) = x - 4$
Find $(g \cdot f)(x)$
$x^3 - 8x^2 + 16x$

7) $g(t) = -4t + 1$
$h(t) = t^2 + 3t$
Find $(g - h)(t)$
$-t^2 - 7t + 1$

8) $f(n) = -2n + 4$
$g(n) = n^2 + 1$
Find $(f - g)(n)$
$-n^2 - 2n + 3$

9) $g(x) = -3x - 1$
$f(x) = 4x + 5$
Find $(g \cdot f)(x)$
$-12x^2 - 19x - 5$

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

11) $g(n) = 3n + 1$
$h(n) = n - 1$
Find $\left(\frac{g}{h}\right)(n)$
$\frac{3n + 1}{n - 1}$

12) $g(n) = n^3 + 5n$
$h(n) = -3n + 2$
Find $(g - h)(n)$
$n^3 + 8n - 2$

13) $g(n) = 2n - 2$
$f(n) = n^3 - 4n^2$
Find $(g \cdot f)(n)$
$2n^4 - 10n^3 + 8n^2$

14) $h(x) = 2x - 2$
$g(x) = x + 2$
Find $(h \cdot g)(x)$
$2x^2 + 2x - 4$

15) $g(n) = 4n + 5$
$h(n) = 3n + 1$
Find $\left(\frac{g}{h}\right)(n)$
$\frac{4n + 5}{3n + 1}$

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

17) $g(x) = -x^3 - 5$
$f(x) = x - 5$
Find $(g + f)(x)$
$-x^3 + x - 10$

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

19) $h(n) = -n^3 - n^2$
$g(n) = 2n + 1$
Find $(h - g)(n)$

$-n^3 - n^2 - 2n - 1$

20) $g(n) = 4n - 5$
$f(n) = n^3 - 4n$
Find $(g \cdot f)(n)$

$4n^4 - 5n^3 - 16n^2 + 20n$

21) $f(n) = -n + 5$
$g(n) = 3n + 1$
Find $(f + g)(-9)$

-12

22) $f(x) = 4x + 1$
$g(x) = x^3 + 3$
Find $(f \cdot g)(2)$

99

23) $g(n) = 4n - 1$
$f(n) = n^3 + 4n$
Find $(g + f)(2)$

23

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

-68

25) $g(x) = x^2 + 3x$
$h(x) = 3x + 4$
Find $(g - h)(5)$

21

26) $g(a) = 3a + 1$
$f(a) = a^2 + 2a$
Find $\left(\frac{g}{f}\right)(-8)$

$-\frac{23}{48}$

27) $h(x) = 3x - 1$
$g(x) = 2x^3 - 2$
Find $(h \cdot g)(-1)$

16

28) $h(n) = 2n + 2$
$g(n) = 2n - 5$
Find $(h - g)(-2)$

7

29) $g(n) = 2n - 2$
$f(n) = n^3 - n$
Find $(g - f)(-6)$

196

30) $g(a) = -a^3 - 4$
$h(a) = 4a - 4$
Find $(g - h)(-5)$

145

31) $g(t) = 3t - 2$
$h(t) = t^2 - 1$
Find $(g + h)(5)$

37

32) $f(x) = x + 5$
$g(x) = x^2 + 5$
Find $\left(\frac{f}{g}\right)(6)$

$\frac{11}{41}$

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

-15

34) $g(x) = x^3 + 4x^2$
$h(x) = 3x + 3$
Find $\left(\frac{g}{h}\right)(3)$

$\frac{21}{4}$

35) $f(t) = 2t - 2$
$g(t) = t^3 + t^2$
Find $(f - g)(0)$

-2

36) $f(x) = 2x + 2$
$g(x) = 3x + 1$
Find $(f \cdot g)(-5)$

112

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

66

38) $g(a) = 3a + 5$
$h(a) = 3a + 2$
Find $(g + h)(-6)$

-29

39) $g(n) = 2n - 1$
$h(n) = 4n + 5$
Find $(g \cdot h)(2)$
39

40) $g(x) = x^2 + 3$
$h(x) = 2x + 1$
Find $\left(\frac{g}{h}\right)(8)$
$\frac{67}{17}$

41) $g(n) = n^3 - 2n$
Find $(g \circ g)(n)$
$n^9 - 6n^7 + 12n^5 - 10n^3 + 4n$

42) $g(x) = 2x$
$h(x) = x^2 + 5x$
Find $(g \circ h)(x)$
$2x^2 + 10x$

43) $f(n) = -n^2 + n$
$g(n) = 4n - 1$
Find $(f \circ g)(n)$
$-16n^2 + 12n - 2$

44) $g(n) = 2n$
$f(n) = 4n + 3$
Find $(g \circ f)(n)$
$8n + 6$

45) $f(n) = 4n - 5$
$g(n) = -n^2 - 3n$
Find $(f \circ g)(n)$
$-4n^2 - 12n - 5$

46) $g(a) = 3a + 2$
$f(a) = a^2 - 2 + 2a$
Find $(g \circ f)(a)$
$3a^2 + 6a - 4$

47) $g(x) = -x - 1$
$h(x) = 4x - 1$
Find $(g \circ h)(x)$
$-4x$

48) $f(t) = 3t + 5$
$g(t) = t^2 + 1$
Find $(f \circ g)(t)$
$3t^2 + 8$

49) $g(x) = 2x$
$h(x) = x^2 - 5$
Find $(g \circ h)(x)$
$2x^2 - 10$

50) $f(a) = a^2 + 3 + 2a$
$g(a) = a + 5$
Find $(f \circ g)(a)$
$a^2 + 12a + 38$

51) $g(n) = -2n^2 + 2n$
$f(n) = 2n + 1$
Find $(g \circ f)(n)$
$-8n^2 - 4n$

52) $f(n) = 2n - 4$
Find $(f \circ f)(n)$
$4n - 12$

53) $g(n) = 3n - 5$
Find $(g \circ g)(n)$
$9n - 20$

54) $g(a) = a^2 - 5$
$h(a) = 3a + 5$
Find $(g \circ h)(a)$
$9a^2 + 30a + 20$

55) $g(a) = -2a + 3$
$h(a) = 4a - 3$
Find $(g \circ h)(a)$
$-8a + 9$

56) $g(n) = 4n - 2$
$h(n) = n^2 + 5$
Find $(g \circ h)(n)$
$4n^2 + 18$

57) $h(x) = x^2 - 1$
$g(x) = 3x - 1$
Find $(h \circ g)(x)$
$9x^2 - 6x$

58) $g(a) = -4a - 3$
$f(a) = -a$
Find $(g \circ f)(a)$
$4a - 3$

59) $f(x) = x^2 + 5x$
$g(x) = x + 2$
Find $(f \circ g)(x)$

$x^2 + 9x + 14$

60) $f(x) = -x + 3$
$g(x) = x^3 - 2x^2$
Find $(f \circ g)(x)$

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

61) $g(x) = 4x - 1$
$f(x) = x^3 + 2x$
Find $(g \circ f)(-2)$

-49

62) $g(a) = a - 5$
$h(a) = -a^2 - 2a$
Find $(g \circ h)(5)$

-40

63) $g(x) = 3x + 3$
$h(x) = x^2 - 4x$
Find $(g \circ h)(7)$

66

64) $h(t) = t + 5$
$g(t) = 2t^2 + 5t$
Find $(h \circ g)(-5)$

30

65) $g(n) = n + 4$
Find $(g \circ g)(2)$

10

66) $h(t) = 3t - 3$
Find $(h \circ h)(-9)$

-93

67) $g(n) = 2n - 4$
$f(n) = 4n + 3$
Find $(g \circ f)(-3)$

-22

68) $f(n) = n + 1$
$g(n) = 3n - 3$
Find $(f \circ g)(3)$

7

69) $g(x) = x - 5$
$h(x) = x^3 + 3x^2$
Find $(g \circ h)(-2)$

-1

70) $g(t) = 4t - 3$
$f(t) = t^3 - t^2 + t$
Find $(g \circ f)(-2)$

-59

71) $g(n) = n^2 + 4$
$f(n) = 3n - 5$
Find $(g \circ f)(5)$

104

72) $h(n) = 3n - 4$
$g(n) = -2n + 3$
Find $(h \circ g)(-3)$

23

73) $g(n) = 4n - 3$
$h(n) = 4n + 1$
Find $(g \circ h)(-7)$

-111

74) $f(x) = 4x + 5$
$g(x) = -3x^2 - 5x$
Find $(f \circ g)(-3)$

-43

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

-11

76) $f(t) = 3t - 2$
Find $(f \circ f)(-9)$

-89

77) $g(t) = -t - 5$
$f(t) = t^2 + t$
Find $(g \circ f)(-4)$

-17

78) $g(n) = -n - 2$
$h(n) = 3n - 5$
Find $(g \circ h)(-10)$

33

79) $f(x) = 2x$
$g(x) = -2x - 5$
Find $(f \circ g)(2)$

-18

80) $g(x) = 3x - 4$
$h(x) = 4x + 4$
Find $(g \circ h)(2)$

32