

Unit 1: Algebra II Review – Section 6 WS

Date _____ Block _____

Perform the indicated operation.

$$1) \begin{aligned} g(x) &= 2x - 1 \\ h(x) &= -2x^3 + 4 \\ \text{Find } (g + h)(x) \end{aligned}$$

$$2) \begin{aligned} h(x) &= -2x - 1 \\ g(x) &= -3x + 3 \\ \text{Find } h(x) + g(x) \end{aligned}$$

$$3) \begin{aligned} h(t) &= t^3 - 5 \\ g(t) &= 3t - 1 \\ \text{Find } (h - g)(t) \end{aligned}$$

$$4) \begin{aligned} g(x) &= 2x - 3 \\ f(x) &= x^2 + 5 \\ \text{Find } g(x) - f(x) \end{aligned}$$

$$5) \begin{aligned} g(n) &= 2n + 2 \\ f(n) &= 3n - 3 \\ \text{Find } (g \cdot f)(n) \end{aligned}$$

$$6) \begin{aligned} h(x) &= 4x + 1 \\ g(x) &= 2x - 4 \\ \text{Find } h(x) \cdot g(x) \end{aligned}$$

$$7) \begin{aligned} f(x) &= -4x - 4 \\ g(x) &= 3x \\ \text{Find } \left(\frac{f}{g}\right)(x) \end{aligned}$$

$$8) \begin{aligned} f(n) &= -3n^2 + 2 \\ g(n) &= 4n + 5 \\ \text{Find } f(n) \div g(n) \end{aligned}$$

Evaluate the indicated function for the given value.

$$9) \begin{aligned} g(t) &= 2t \\ f(t) &= 2t - 4 \\ \text{Find } (g + f)(3) \end{aligned}$$

$$10) \begin{aligned} g(a) &= 4a + 3 \\ h(a) &= -a + 5 \\ \text{Find } g(-9) + h(-9) \end{aligned}$$

$$11) \begin{aligned} g(x) &= x - 2 \\ h(x) &= x - 5 \\ \text{Find } (g - h)(-7) \end{aligned}$$

$$12) \begin{aligned} g(n) &= 4n - 5 \\ f(n) &= 4n - 3 \\ \text{Find } g(-6) - f(-6) \end{aligned}$$

$$13) \begin{aligned} g(n) &= n^3 - 4n \\ h(n) &= 4n - 5 \\ \text{Find } (g \cdot h)(3) \end{aligned}$$

$$14) \begin{aligned} f(a) &= a + 1 \\ g(a) &= a^3 - 5 \\ \text{Find } f(-2) \cdot g(-2) \end{aligned}$$

$$15) \begin{aligned} g(t) &= t^2 + 3 \\ f(t) &= t + 4 \\ \text{Find } \left(\frac{g}{f}\right)(0) \end{aligned}$$

$$16) \begin{aligned} f(x) &= 3x - 3 \\ g(x) &= -x^3 + 4x \\ \text{Find } f(-6) \div g(-6) \end{aligned}$$

Perform the indicated operation.

$$17) \begin{aligned} h(x) &= 4x - 1 \\ g(x) &= -2x^3 - 1 \\ \text{Find } (h \circ g)(x) \end{aligned}$$

$$18) \begin{aligned} g(x) &= 3x + 2 \\ h(x) &= x^2 + x \\ \text{Find } (g \circ h)(x) \end{aligned}$$

$$19) \begin{aligned} h(x) &= 4x - 4 \\ g(x) &= x^3 - 3 \\ \text{Find } h(g(x)) \end{aligned}$$

$$20) \begin{aligned} f(n) &= 4n - 4 \\ g(n) &= 4n + 4 \\ \text{Find } f(g(n)) \end{aligned}$$

Evaluate the indicated function for the given value.

$$21) \begin{aligned} g(x) &= 4x - 5 \\ h(x) &= x - 2 \\ \text{Find } (g \circ h)(9) \end{aligned}$$

$$22) \begin{aligned} g(n) &= 4n - 1 \\ f(n) &= n + 2 \\ \text{Find } (g \circ f)(-8) \end{aligned}$$

$$23) \begin{aligned} g(t) &= 2t + 2 \\ h(t) &= t - 5 \\ \text{Find } g(h(-8)) \end{aligned}$$

$$24) \begin{aligned} g(t) &= t - 3 \\ h(t) &= 4t - 2 \\ \text{Find } g(h(-3)) \end{aligned}$$

Perform the indicated operation.

$$25) \begin{aligned} g(a) &= a - 2 \\ h(a) &= a^2 + 5a \\ \text{Find } 4g(a) - 3h(a) \end{aligned}$$

$$26) \begin{aligned} f(t) &= -t - 4 \\ g(t) &= 2t + 5 \\ \text{Find } 2f(t) + 5g(t) \end{aligned}$$

Evaluate the indicated function for the given value.

$$27) \begin{aligned} g(x) &= x^3 - 3x \\ h(x) &= 2x + 2 \\ \text{Find } g(-2) - 5h(-2) \end{aligned}$$

$$28) \begin{aligned} h(t) &= t + 1 \\ g(t) &= 3t + 4 \\ \text{Find } 2h(-1) + 3g(-1) \end{aligned}$$

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Perform the indicated operation.

$$1) \begin{aligned} g(x) &= 2x - 1 \\ h(x) &= -2x^3 + 4 \\ \text{Find } (g + h)(x) \end{aligned}$$

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

$$2) \begin{aligned} h(x) &= -2x - 1 \\ g(x) &= -3x + 3 \\ \text{Find } h(x) + g(x) \end{aligned}$$

$$-5x + 2$$

$$3) \begin{aligned} h(t) &= t^3 - 5 \\ g(t) &= 3t - 1 \\ \text{Find } (h - g)(t) \end{aligned}$$

$$t^3 - 3t - 4$$

$$4) \begin{aligned} g(x) &= 2x - 3 \\ f(x) &= x^2 + 5 \\ \text{Find } g(x) - f(x) \end{aligned}$$

$$-x^2 + 2x - 8$$

$$5) \begin{aligned} g(n) &= 2n + 2 \\ f(n) &= 3n - 3 \\ \text{Find } (g \cdot f)(n) \end{aligned}$$

$$6n^2 - 6$$

$$6) \begin{aligned} h(x) &= 4x + 1 \\ g(x) &= 2x - 4 \\ \text{Find } h(x) \cdot g(x) \end{aligned}$$

$$8x^2 - 14x - 4$$

$$7) \begin{aligned} f(x) &= -4x - 4 \\ g(x) &= 3x \\ \text{Find } \left(\frac{f}{g}\right)(x) \end{aligned}$$

$$\frac{-4x - 4}{3x}$$

$$8) \begin{aligned} f(n) &= -3n^2 + 2 \\ g(n) &= 4n + 5 \\ \text{Find } f(n) \div g(n) \end{aligned}$$

$$\frac{-3n^2 + 2}{4n + 5}$$

Evaluate the indicated function for the given value.

$$9) \begin{aligned} g(t) &= 2t \\ f(t) &= 2t - 4 \\ \text{Find } (g + f)(3) \end{aligned}$$

$$8$$

$$10) \begin{aligned} g(a) &= 4a + 3 \\ h(a) &= -a + 5 \\ \text{Find } g(-9) + h(-9) \end{aligned}$$

$$-19$$

$$11) \begin{aligned} g(x) &= x - 2 \\ h(x) &= x - 5 \\ \text{Find } (g - h)(-7) \end{aligned}$$

$$3$$

$$12) \begin{aligned} g(n) &= 4n - 5 \\ f(n) &= 4n - 3 \\ \text{Find } g(-6) - f(-6) \end{aligned}$$

$$-2$$

$$13) \begin{aligned} g(n) &= n^3 - 4n \\ h(n) &= 4n - 5 \\ \text{Find } (g \cdot h)(3) \end{aligned}$$

$$105$$

$$14) \begin{aligned} f(a) &= a + 1 \\ g(a) &= a^3 - 5 \\ \text{Find } f(-2) \cdot g(-2) \end{aligned}$$

$$13$$

$$15) \begin{aligned} g(t) &= t^2 + 3 \\ f(t) &= t + 4 \\ \text{Find } \left(\frac{g}{f}\right)(0) \end{aligned}$$

$$\frac{3}{4}$$

$$16) \begin{aligned} f(x) &= 3x - 3 \\ g(x) &= -x^3 + 4x \\ \text{Find } f(-6) \div g(-6) \end{aligned}$$

$$-\frac{7}{64}$$

Perform the indicated operation.

$$17) \begin{aligned} h(x) &= 4x - 1 \\ g(x) &= -2x^3 - 1 \\ \text{Find } (h \circ g)(x) \end{aligned}$$

$$-8x^3 - 5$$

$$18) \begin{aligned} g(x) &= 3x + 2 \\ h(x) &= x^2 + x \\ \text{Find } (g \circ h)(x) \end{aligned}$$

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

$$19) \begin{aligned} h(x) &= 4x - 4 \\ g(x) &= x^3 - 3 \\ \text{Find } h(g(x)) \end{aligned}$$

$$4x^3 - 16$$

$$20) \begin{aligned} f(n) &= 4n - 4 \\ g(n) &= 4n + 4 \\ \text{Find } f(g(n)) \end{aligned}$$

$$16n + 12$$

Evaluate the indicated function for the given value.

$$21) \begin{aligned} g(x) &= 4x - 5 \\ h(x) &= x - 2 \\ \text{Find } (g \circ h)(9) \end{aligned}$$

$$23$$

$$22) \begin{aligned} g(n) &= 4n - 1 \\ f(n) &= n + 2 \\ \text{Find } (g \circ f)(-8) \end{aligned}$$

$$-25$$

$$23) \begin{aligned} g(t) &= 2t + 2 \\ h(t) &= t - 5 \\ \text{Find } g(h(-8)) \end{aligned}$$

$$-24$$

$$24) \begin{aligned} g(t) &= t - 3 \\ h(t) &= 4t - 2 \\ \text{Find } g(h(-3)) \end{aligned}$$

$$-17$$

Perform the indicated operation.

$$25) \begin{aligned} g(a) &= a - 2 \\ h(a) &= a^2 + 5a \\ \text{Find } 4g(a) - 3h(a) \end{aligned}$$

$$-3a^2 - 11a - 8$$

$$26) \begin{aligned} f(t) &= -t - 4 \\ g(t) &= 2t + 5 \\ \text{Find } 2f(t) + 5g(t) \end{aligned}$$

$$8t + 17$$

Evaluate the indicated function for the given value.

$$27) \begin{aligned} g(x) &= x^3 - 3x \\ h(x) &= 2x + 2 \\ \text{Find } g(-2) - 5h(-2) \end{aligned}$$

$$8$$

$$28) \begin{aligned} h(t) &= t + 1 \\ g(t) &= 3t + 4 \\ \text{Find } 2h(-1) + 3g(-1) \end{aligned}$$

$$3$$