

Assignment: Function (Inverse and Composition)

Date _____

Find the inverse of each function.

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

2) $g(x) = 3x - 9$

3) $f(n) = n^3 - 3$

4) $f(n) = \sqrt[3]{n} + 2$



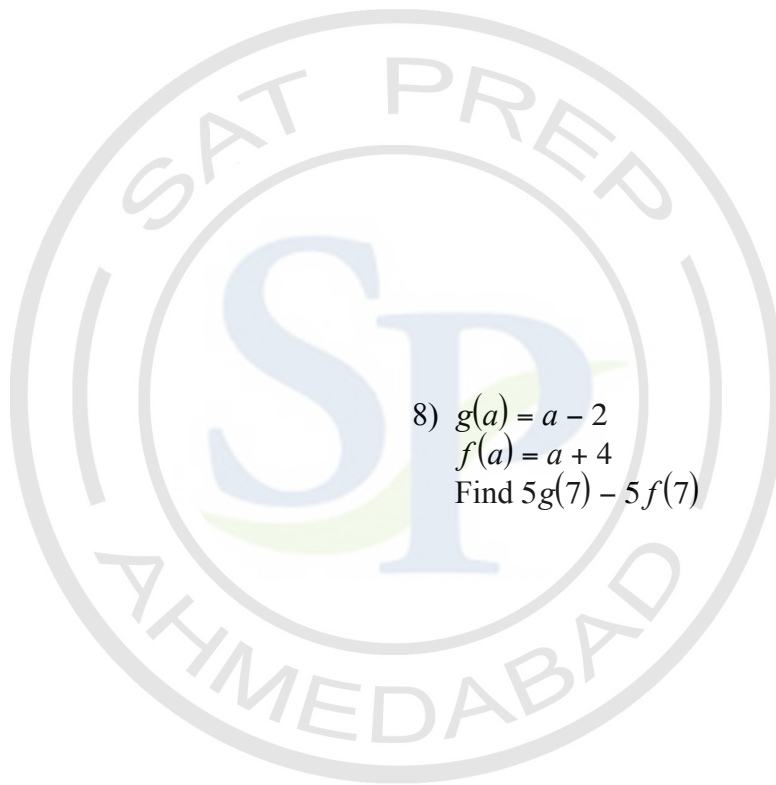
Perform the indicated operation.

5) $g(n) = 2n + 2$
Find $(g \circ g)(-10)$

6) $g(x) = 3x - 2$
 $h(x) = x - 4$
Find $(g \circ h)(-8)$

7) $f(x) = x + 4$
 $g(x) = x^2 + 4x$
Find $2f(0) + 3g(0)$

8) $g(a) = a - 2$
 $f(a) = a + 4$
Find $5g(7) - 5f(7)$



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

10) $g(n) = n^3 - 1$
 $h(n) = n + 4$
Find $(g \circ h)(-4n)$



Assignment: Function (Inverse and Composition)

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Find the inverse of each function.

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

$$h^{-1}(n) = \sqrt[3]{n + 2} + 1$$

2) $g(x) = 3x - 9$

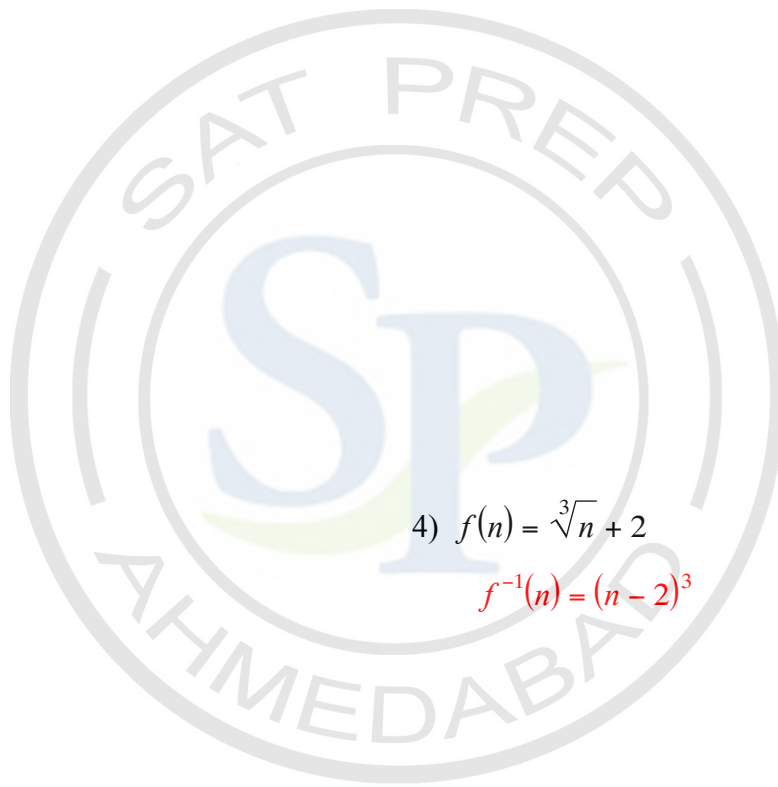
$$g^{-1}(x) = \frac{9 + x}{3}$$

3) $f(n) = n^3 - 3$

$$f^{-1}(n) = \sqrt[3]{n + 3}$$

4) $f(n) = \sqrt[3]{n} + 2$

$$f^{-1}(n) = (n - 2)^3$$



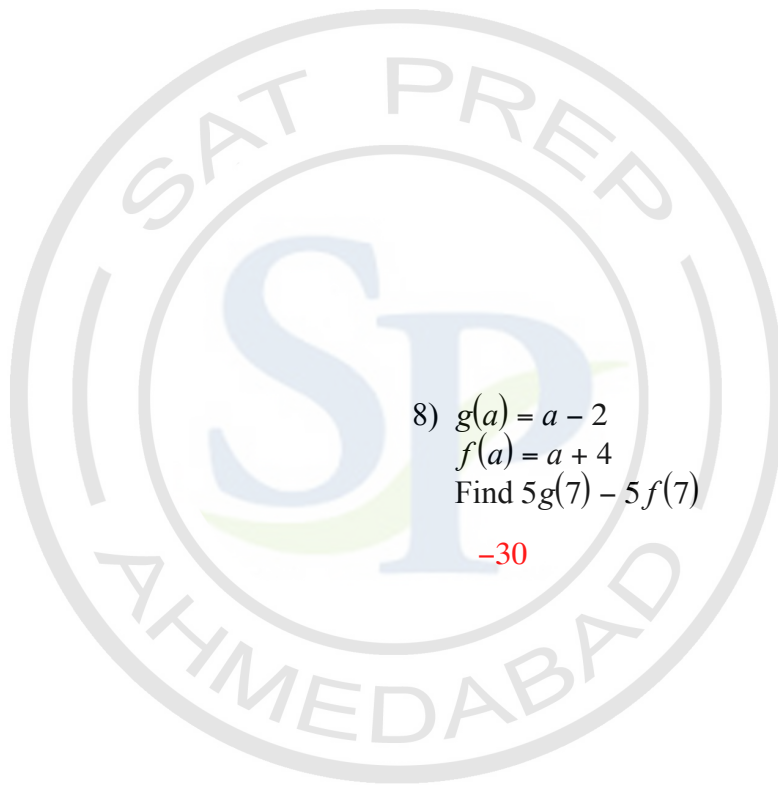
Perform the indicated operation.

5) $g(n) = 2n + 2$
Find $(g \circ g)(-10)$
-34

6) $g(x) = 3x - 2$
 $h(x) = x - 4$
Find $(g \circ h)(-8)$
-38

7) $f(x) = x + 4$
 $g(x) = x^2 + 4x$
Find $2f(0) + 3g(0)$
8

8) $g(a) = a - 2$
 $f(a) = a + 4$
Find $5g(7) - 5f(7)$
-30



9) $g(n) = 3n + 3$
 $h(n) = 3n + 2$
Find $(g \circ h)(-4n)$
 $-36n + 9$

10) $g(n) = n^3 - 1$
 $h(n) = n + 4$
Find $(g \circ h)(-4n)$
 $-64n^3 + 192n^2 - 192n + 63$

