

Perform the requested operation or operations.

1) $f(x) = 3x + 11$; $g(x) = 5x - 1$
Find $f(g(x))$.

2) $f(x) = 4x^2 + 2x + 3$; $g(x) = 2x - 4$, find $g(f(x))$.

3) $f(x) = x^2 + 9$; $g(x) = \sqrt{x - 3}$
Find $g(f(x))$.

4) $f(x) = \sqrt{x + 4}$; $g(x) = 8x - 8$, find $f(g(x))$.

5) $f(x) = x^2 + 1$; $g(x) = \sqrt{x - 3}$
Find $f(g(x))$.

Find functions f and g so that $h(x) = f(g(x))$.

6) $h(x) = \frac{1}{x^2 - 8}$

A) $f(x) = 1/x, g(x) = x^2 - 8$

C) $f(x) = 1/x^2, g(x) = x - 8$

B) $f(x) = 1/x^2, g(x) = -1/8$

D) $f(x) = 1/8, g(x) = x^2 - 8$

7) $h(x) = |6x + 5|$

A) $f(x) = |-x|, g(x) = 6x - 5$

C) $f(x) = -|x|, g(x) = 6x + 5$

B) $f(x) = |x|, g(x) = 6x + 5$

D) $f(x) = x, g(x) = 6x + 5$

8) $h(x) = \frac{2}{x^2} + 10$

A) $f(x) = x, g(x) = 2/x + 10$

C) $f(x) = x + 10, g(x) = 2/x^2$

B) $f(x) = 1/x, g(x) = 2/x + 10$

D) $f(x) = 2/x^2, g(x) = 10$