

Name: _____

Date: _____

1. If $f(x) = 2x + 1$ and $g(x) = x^2 + 2x + 1$, find $f(g(x))$.

A. $x^2 + 2x + 3$ B. $2x^2 + 4x + 3$
C. $4x^2 + 2x + 2$ D. $4x^2 + 8x + 4$

2. If $f(x) = 2x$ and $g(x) = x - 4$, what is the value of $f(g(3))$?

A. -6 B. -2 C. 2 D. 6

3. If $f(x) = 2x$ and $g(x) = x - 4$, what is the value of $g(f(3))$?

A. -6 B. -2 C. 0 D. 2

4. Find $g(f(x))$, given $f(x) = 2x + 3$ and $g(x) = \frac{4x}{5x^2 - 1}$.

A. $\frac{15x^2 + 8x - 3}{5x^2 - 1}$
B. $\frac{8x^2 + 12x}{5x^2 - 1}$
C. $\frac{2x + 3}{5x^2 + 15x + 11}$
D. $\frac{4x}{10x^3 + 15x^2 - 2x - 3}$

5. If $f(x) = 2x + 1$ and $g(x) = x^2 + 2x + 1$, find $g(f(x))$.

A. $4x^2 + 8x + 4$ B. $-16x^2 + 8x + 4$
C. $16x^2 + 8x - 4$ D. $-4x^2 - 8x + 4$

1.
Answer: B
Objective: F.BF.1C
2.
Answer: B
Objective: F.BF.1C
3.
Answer: D
Objective: F.BF.1C
4.
Answer: C
Objective: F.BF.1C
5.
Answer: A
Objective: F.BF.1C