Composition of functions

Name _____ Date _____

1. $f(x) = x^2 + 2x + 9$, $g(x) = -2x - 7$; $f(g(-3)) =$ _____

2. $f(x) = -x$, $g(x) = 3x + 9$; $f(g(x)) =$ _____

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

4. $f(x) = -4x - 8$, $g(x) = -2x^2 + 4x - 6$; $f(g(1)) =$ _____

5. $f(x) = 3x - 5$, $g(x) = -x + 1$; $g(f(x)) =$ _____

6. $f(x) = -x + 3$, $g(x) = -4x - 5$; $f(g(4)) =$ _____

7. $f(x) = -x^2 + 3x - 9$, $g(x) = -3x - 2$; $g(f(x)) =$ _____

8. $f(x) = 3x + 8$, $g(x) = -3x + 1$; $g(f(x)) =$ _____

9. $f(x) = -x^2 - 2x - 8$, $g(x) = -x - 5$; $f(g(x)) =$ _____

Composition of functions

10. $f(x) = 3x - 8, \quad g(x) = 2x - 1; \quad g(f(x)) =$ _____

11. $f(x) = -x + 5, \quad g(x) = -2x^2 - 3x - 9; \quad f(g(x)) =$ _____

12. $f(x) = x + 6, \quad g(x) = 4x + 8; \quad f(g(-2)) =$ _____

13. $f(x) = x - 1, \quad g(x) = 4x + 3; \quad g(f(x)) =$ _____

14. $f(x) = -4x - 7, \quad g(x) = 3x + 1; \quad g(f(x)) =$ _____

15. $f(x) = -x - 1, \quad g(x) = -2x^2 + 4x - 5; \quad f(g(x)) =$ _____

16. $f(x) = x - 9, \quad g(x) = x^2 - 5x + 2; \quad f(g(3)) =$ _____

17. $f(x) = -4x - 1, \quad g(x) = 3x + 3; \quad g(f(x)) =$ _____

18. $f(x) = x + 6, \quad g(x) = -2x - 2; \quad f(g(x)) =$ _____