Adding, subtracting, and multiplying functions

Name _____ Date _____

1. $f(x) = -x - 3$, $g(x) = -3x^2 + 6x - 2$; $(f - g)(x) =$ _____

2. $f(x) = -5x + 3$, $g(x) = x^2 - 4x - 9$; $(f - g)(x) =$ _____

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

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

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

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

7. $f(x) = 2x - 1$, $g(x) = 3x^2 - 5x + 1$; $(f + g)(x) =$ _____

8. $f(x) = -4x - 3$, $g(x) = -2x^2 + 2x + 1$; $(fg)(x) =$ _____

9. $f(x) = -x - 5$, $g(x) = x - 3$; $(fg)(x) =$ _____

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

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

12. $f(x) = -5x + 7$, $g(x) = -x^2 - 4x + 9$; $(f - g)(x) =$ _____

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

14. $f(x) = 3x + 4$, $g(x) = -x^2 - 3x - 1$; $(fg)(x) =$ _____

15. $f(x) = x + 3$, $g(x) = 2x^2 + x - 8$; $(fg)(x) =$ _____

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

17. $f(x) = 2x + 8$, $g(x) = -3x + 4$; $(fg)(x) =$ _____

18. $f(x) = 4x + 2$, $g(x) = -3x^2 - 6x + 4$; $(f - g)(x) =$ _____

19. $f(x) = 4x + 7$, $g(x) = 3x - 8$; $(fg)(x) =$ _____

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

21. $f(x) = 3x + 8$, $g(x) = 2x^2 - 4x + 6$; $(fg)(x) =$ _____