Name _____ Class _____ Date _____

Practice 2-7 Worksheet #5

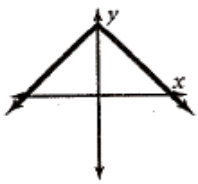
Mixed Exercises

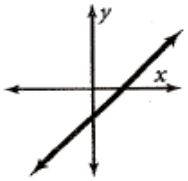
1. Create three equations that belong to the quadratic family of functions.
2. Create three equations that belong to the absolute value family of functions.
3. Sketch three graphs that belong to the linear family of functions.

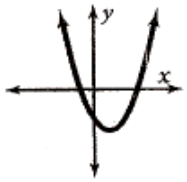
To what family of functions does each equation belong? Explain why.

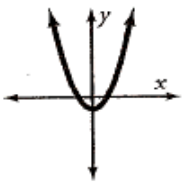
4. $y = 5 - |2x|$
5. $y = 3x^2 - 2$
6. $y = |x - 1|$
7. $y = 10x - 2$
8. $y = |3x| + 2$
9. $y = x^2 + 2x + 5$
10. $y = -\frac{2}{3}x^2 - 5$
11. $y = -3x$
12. $y = 7x + |-3|$
13. $y = 6 - 4x$
14. $y = 3|x + 2|$
15. $y = 4x + x^2$

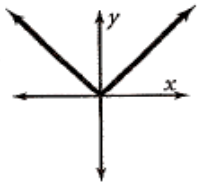
To what family of functions does each graph belong? Explain why.

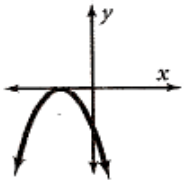
16. 

17. 

18. 

19. 

20. 

21. 

To what family of functions does each equation belong? Explain why.

22. $y = |x - 5|$
23. $y = -\frac{2}{3}x - 5$
24. $y = x + 4$
25. $y = 2 + 3x - x^2$
26. $y = 4x^2 - x$
27. $y = 3 + |2x|$
28. $y = \frac{1}{2}x^2$
29. $y = -5x - 8$
30. $y = 7x - 6$
31. $y = -6|x|$
32. $y = -\frac{8}{9}x - 12$
33. $y = -7x^2 + 7x - 6$
34. $y = 4 + x + x^2$
35. $y = \left|\frac{2}{7}x\right| + 8$
36. $y = -13 - x$