Name:_____ **Date:**_____ **Per:**____

10.2- Finding Axis of Symmetry and Vertex
Practice 2

Tell whether the graph opens upward or downward. Then find the axis of symmetry and vertex of the graph of the function.

1. $y = -3x^2 + 3x + 5$

2. $y = \frac{5}{2}x^2 - 2x + 1$

3. $y = 8x^2 - 2x + 3$

4. $y = -9x^2 + 9x$

5. $y = \frac{2}{3}x^2 - 9$

6. $y = -5x^2 + 2x - 3$

7. $y = \frac{1}{8}x^2 - 2x$

8. $y = -\frac{1}{5}x^2 + 7$

9. $y = -6x^2 + 8x - 10$

10. $y = 4x^2 - 12x + 8$

11. $y = 5x^2 + 10x - 3$

12. $y = -6x^2 + 12x + 5$

13. $y = \frac{1}{2}x^2 + 5x - 4$

14. $y = -\frac{1}{4}x^2 - 24$

15. $y = -3x^2 + 9x - 8$

16. $y = x^2 - 5$

17. $y = -x^2 + 9$

18. $y = -2x^2 + 6x + 7$

19. $y = 3x^2 - 12x + 1$

20. $y = 3x^2 + 6x - 2$

21. $y = -2x^2 + 7x - 21$

22. $y = 3x^2 - 2x + 3$

23. $y = -2x^2 + 7x + 1$

24. $y = 3x^2 + 2x - 5$

25. $y = x^2 + 6$

26. $y = -x^2 - 1$

27. $y = x^2 + 6x + 1$

28. $y = x^2 - 4x + 5$

29. $y = 2x^2 + 4x - 5$

30. $y = -x^2 + 8x + 3$

31. $y = x^2 + 3x + 6$

32. $y = -x^2 + 7x - 2$

33. $y = 3x^2 + 6x + 10$