

Name _____ Class _____ Date _____

Practice 7-8**Graphing Square Root and Other Radical Functions****Graph each function.**

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|---------------------------|---------------------------|---------------------------|
| 1. $y = -\sqrt{x+2}$ | 2. $y = \sqrt{x-3}$ | 3. $y = \sqrt{x+1}$ |
| 4. $y = -\sqrt{x-1}$ | 5. $y = \sqrt{x-4} + 2$ | 6. $y = \sqrt{x+1} - 3$ |
| 7. $y = \sqrt{x+2} - 6$ | 8. $y = -\sqrt{x-2} + 3$ | 9. $y = -\sqrt{x-3} + 3$ |
| 10. $y = \sqrt{x+3} - 2$ | 11. $y = \sqrt{x-1} - 5$ | 12. $y = -\sqrt{x-2} + 5$ |
| 13. $y = -\sqrt{x+1} - 4$ | 14. $y = -\sqrt{x-1} + 2$ | 15. $y = \sqrt{x-1} + 3$ |
| 16. $y = \sqrt{x-2} + 1$ | 17. $y = \sqrt{x+2} - 2$ | 18. $y = \sqrt{x-1} + 2$ |
| 19. $y = \sqrt{x+1} + 4$ | 20. $y = \sqrt{x-3} + 3$ | 21. $y = \sqrt{x+1} - 2$ |
| 22. $y = \sqrt{x-1} - 1$ | 23. $y = \sqrt{x+3} - 3$ | 24. $y = \sqrt{x+4} - 1$ |
| 25. $y = \sqrt{x-2} - 4$ | 26. $y = \sqrt{x+2} + 1$ | 27. $y = \sqrt{x-2} + 3$ |

28. If you know the area A of a circle, you can use the equation $r = \sqrt{\frac{A}{\pi}}$ to find the radius r .

- Graph the equation.
- What is the radius of a circle with an area of 350 ft^2 ?

Solve each square root equation by graphing. Round the answer to the nearest hundredth if necessary. If there is no solution, explain why.

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|--------------------------------|----------------------------------|
| 29. $\sqrt{x+6} = 9$ | 30. $\sqrt{4x-3} = 5$ |
| 31. $\sqrt{3x-5} = \sqrt{1-x}$ | 32. $3\sqrt{2x-1} = 2\sqrt{x+6}$ |

Rewrite each function to make it easy to graph using a translation. Describe the graph.

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|---------------------------|--------------------------------|------------------------------|
| 33. $y = \sqrt{81x+162}$ | 34. $y = -\sqrt{4x+20}$ | 35. $y = \sqrt[3]{125x-250}$ |
| 36. $y = -\sqrt{64x+192}$ | 37. $y = -\sqrt[3]{8x-56} + 4$ | 38. $y = \sqrt{25x+75} - 1$ |

Graph each function.

- | | | |
|----------------------------|-----------------------------|-----------------------------|
| 39. $y = \sqrt[3]{x-1}$ | 40. $y = \sqrt[3]{x+2} - 3$ | 41. $y = \sqrt[3]{x+1} - 2$ |
| 42. $y = -\sqrt[3]{x} + 2$ | 43. $y = 2\sqrt[3]{x-3}$ | 44. $y = \sqrt[3]{x+3} - 1$ |

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