

Name:

Date:

Period:

Solve **AND** check all equations on a separate piece of paper.

1. $\sqrt{x} = 8$

4. $\sqrt{x+7} = 8$

7. $3\sqrt{x} = 27$

10. $\sqrt{2x-4} - 6 = -3$

13. $2\sqrt{x} - 8 = 12$

16. $-4\sqrt{9x-5} + 12 = 24$

19. $\frac{1}{4}\sqrt{6-5x} + 2 = 6$

22. $\sqrt{x+5} - 1 = \sqrt{x}$

25. $\sqrt{x+2} + \sqrt{x} = 4$

2. $\sqrt{2x} = 3$

5. $\sqrt{8-x} = 10$

8. $-5\sqrt{x+4} = 45$

11. $-4\sqrt{x+5} = -48$

14. $-4\sqrt{x} + 11 = 3$

17. $-5\sqrt{2x-8} - 6 = -36$

20. $x-1 = \sqrt{15-7x}$

23. $\sqrt{2x^2-64} = x$

26. Shown is a student's work. Find the error.

$$\sqrt{2x} + 2 = 8$$

$$2x + 4 = 64$$

$$2x = 60$$

$$x = 30$$

3. $\sqrt{-4x} = -6$

6. $\sqrt{4x-7} = 15$

9. $2\sqrt{x+6} = 14$

12. $8\sqrt{7-3x} = 24$

15. $3\sqrt{5x-26} + 6 = 15$

18. $-\frac{2}{3}\sqrt{4x-1} + 6 = -4$

21. $7\sqrt{3x+14} + 12 = -19$

24. $\sqrt{10x^2-7} = 3x$

27. The surface area of a cone is found with the formula $S = \pi \cdot r \sqrt{r^2 + h^2}$. Find **h** to the nearest tenth for the cone below. Use 3.14 for π .