

Name: _____

Chapter 11.3 Review

Solve each radical equation. Check your solutions. If there is no solution, write *no solution*.

1. $\sqrt{x} = 12$

2. $\sqrt{x} + 3 = 11$

3. $\sqrt{4x} - 7 = 1$

4. $x = \sqrt{24 - 10x}$

5. $\sqrt{x - 4} + 3 = 9$

6. $\sqrt{2x + 3} = 5$

7. $\sqrt{3x + 13} = \sqrt{7x - 3}$

8. $\sqrt{3x + 5} = \sqrt{x + 1}$

9. $\sqrt{x + 2} = \sqrt{3x - 6}$

Simplify each radical expression.

10. $\sqrt{32}$

11. $\sqrt{15} \cdot \sqrt{6}$

12. $(10\sqrt{3})^2$

13. $\sqrt{\frac{12}{225}}$

14. $6\sqrt{3} \cdot 7\sqrt{8}$

15. $17\sqrt{21} - 12\sqrt{21}$

16. $12\sqrt{6} - 4\sqrt{24}$

17. $4\sqrt{2}(2 + 2\sqrt{3})$

18. $(\sqrt{6} - 3)^2$