Name _____ Date _____

9.1 Practice A

In Exercises 1–9, simplify the expression.

1. $\sqrt{50}$

2. $\sqrt{68}$

3. $-\sqrt{98}$

4. $\sqrt{\frac{9}{25}}$

5. $-\sqrt{\frac{3}{64}}$

6. $-\sqrt{\frac{x^2}{4}}$

7. $\sqrt[3]{24}$

8. $\sqrt[3]{-250}$

9. $-\sqrt[3]{128x^4}$

10. Describe and correct the error in simplifying the expression.

$\times \quad \sqrt[3]{16} = 4$

In Exercises 11–13, write a factor that you can use to rationalize the denominator of the expression.

11. $\frac{3}{\sqrt{5}}$

12. $\frac{1}{\sqrt{7n}}$

13. $\frac{5}{\sqrt[3]{9}}$

In Exercises 14–22, simplify the expression.

14. $\frac{3}{\sqrt{3}}$

15. $\frac{9}{\sqrt{5}}$

16. $\frac{\sqrt{3}}{\sqrt{50}}$

17. $\frac{4}{\sqrt{w}}$

18. $\frac{1}{\sqrt{5t}}$

19. $\sqrt{\frac{2z^2}{7}}$

20. $\frac{1}{\sqrt{6}-1}$

21. $\frac{3}{4+\sqrt{2}}$

22. $\frac{\sqrt{3}}{5-\sqrt{2}}$

23. The average annual interest rate r (in decimal form) of a savings account is represented by the formula $r = \sqrt{\frac{V_2}{V_0}} - 1$, where V_0 is the initial investment and V_2 is the balance of the account after 2 years. Find the average annual interest rate r of a savings account with an initial investment of \$400 and a balance of \$422 after 2 years.