

Chapter 4 Practice Test

Name: _____

Time> Start: _____ Finish: _____ Total Time = _____

Simplify each radical. Show your work on a separate piece of paper.

_____ 1. $\sqrt{40}$

_____ 2. $\sqrt{90a^5}$

_____ 3. $\sqrt[3]{16}$

_____ 4. $\sqrt{12a^4b^5}$

_____ 5. $\sqrt[3]{a^4b^6}$

_____ 6. $\sqrt{500}$

_____ 7. $\sqrt[5]{a^{12}b^{10}c^6}$

_____ 8. $\sqrt[3]{8a^4}$

_____ 9. $\sqrt[20]{a^{107}}$

_____ 10. $\sqrt[3]{24}$

_____ 11. $\sqrt{2000}$

_____ 12. $\sqrt{12} + \sqrt{27}$

_____ 13. $2\sqrt{8a^5} + 7a\sqrt{2a^3}$

_____ 14. $\sqrt[3]{40} + \sqrt[3]{625}$

_____ 15. $\sqrt{20a} + \sqrt{45a}$

_____ 16. $7\sqrt{20ab^4} + 2b\sqrt{45ab^2}$

_____ 17. $2\sqrt[3]{ab} \cdot 3\sqrt[3]{a^2b}$

_____ 18. $5\sqrt[3]{2n^7} \cdot \sqrt[3]{4n^4}$

_____ 19. $\frac{\sqrt{80a^6b^5}}{\sqrt{10a^3b^2}}$

_____ 20. $\frac{\sqrt{108a^8b^5}}{\sqrt{3a^4b^3}}$

_____ 21. $\sqrt{2} (\sqrt{18} - 4\sqrt{3})$

_____ 22. $\frac{8}{\sqrt{2}}$

_____ 23. $\frac{\sqrt{20}}{\sqrt{6}}$

_____ 24. $\frac{3+\sqrt{7}}{\sqrt{5}}$

_____ 25. $\frac{3}{5-\sqrt{5}}$

_____ 26. $\frac{1+\sqrt{5}}{3-\sqrt{5}}$

_____ 27. $\frac{3+3\sqrt{2n^2}}{\sqrt{6n}}$