

4-3 Radicals – Multiplying and Dividing

Name: _____

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

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

_____ 1. $2\sqrt{2} \cdot 5\sqrt{10}$

_____ 2. $4\sqrt[3]{ab} \cdot 5\sqrt[3]{b}$

_____ 3. $-2\sqrt[3]{a^3b^2} \cdot 5\sqrt[3]{ab}$

_____ 4. $\frac{\sqrt[3]{24a^4}}{\sqrt[3]{8a}}$

_____ 5. $\frac{\sqrt{90a^8b^5}}{\sqrt{10a^3b}}$

_____ 6. $-3\sqrt[3]{ab^2} \cdot 4\sqrt[3]{a^2b^2}$

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

_____ 8. $\frac{\sqrt[3]{24a^4}}{\sqrt[3]{8a}}$

_____ 9. $\frac{\sqrt{216a^8b^5}}{\sqrt{3a^5b}}$

_____ 10. $-2\sqrt[4]{4n^7} \cdot -4\sqrt[4]{4n^4}$

_____ 11. $\frac{\sqrt[3]{200a^8y^7}}{\sqrt[3]{50ay^4}}$

_____ 12. $\frac{\sqrt[3]{8a^9k^8}}{\sqrt[3]{a^5k^7}}$

_____ 13. $\frac{20\sqrt{140}}{5\sqrt{7}}$

_____ 14. $\sqrt{8}(\sqrt{2} - 4\sqrt{3})$