

Algebra 1
9.1 Worksheet #2

Name _____

Simplify the expression.

1. $\sqrt{125x^3}$	2. $\sqrt[3]{-16}$
3. $\sqrt{-72b}$	4. $\sqrt[3]{48x^5y^6}$
5. $\sqrt{\frac{16x^2}{81}}$	6. $\sqrt[3]{\frac{8h^6}{27}}$

Simplify the expression by adding or subtracting.

7. $5\sqrt{7} + 2\sqrt{7} - 3\sqrt{7}$	8. $11\sqrt{3} - 15\sqrt{3} + 9\sqrt{3}$
9. $3\sqrt{6} + \sqrt{24}$	10. $\sqrt{75} + 6\sqrt{3}$
11. $\sqrt[3]{16} + 2\sqrt[3]{54}$	12. $4\sqrt[3]{24} - 5\sqrt[3]{3}$

Simplify the expression.

13. $2\sqrt{3} \cdot 5\sqrt{12}$	14. $14\sqrt[3]{2} \cdot \frac{1}{2}\sqrt[3]{32}$
15. $\sqrt{3}(5\sqrt{2} + \sqrt{3})$	16. $\sqrt[3]{2}(5\sqrt[3]{3} - 2\sqrt[3]{6})$
17. $(\sqrt{6} + 5)^2$	18. $(7 + \sqrt{5})(7 - \sqrt{5})$

Simplify the expression.

19. $\frac{5}{\sqrt{7}}$	20. $\frac{6}{\sqrt{2x}}$
21. $\frac{6}{\sqrt[3]{5}}$	22. $\frac{7\sqrt{2}}{\sqrt{3}}$
23. $\frac{7}{10 + \sqrt{2}}$	24. $\frac{12}{5 - \sqrt{7}}$