

## Practice

## Radical Expressions

Simplify.

1.  $\sqrt[3]{-432}$

2.  $\sqrt{540}$

3.  $\sqrt{5}(\sqrt{10} - \sqrt{45})$

4.  $\sqrt[3]{6}(4\sqrt[3]{12} + 5\sqrt[3]{9})$

5.  $(2\sqrt[3]{24})(7\sqrt[3]{18})$

6.  $\frac{\sqrt[4]{8}}{\sqrt{9a^3}}$

7.  $\sqrt{\frac{11}{9}}$

8.  $\sqrt[3]{-6750}$

9.  $\sqrt{3x^2y^3} \cdot \sqrt{75xy^5}$

10.  $\sqrt[3]{9t^5v^8} \cdot \sqrt[3]{6tv^4}$

11.  $\sqrt{60} \cdot \sqrt{105}$

12.  $\sqrt[3]{3600} \cdot \sqrt[3]{165}$

13.  $\sqrt{810} + \sqrt{240} + \sqrt{135} - \sqrt{250}$

14.  $\sqrt[3]{216} - \sqrt[3]{48} + \sqrt[3]{432}$

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

16.  $(\sqrt{18} + 2\sqrt{3})^2$

17.  $(\sqrt{5} - \sqrt{6})(\sqrt{5} + \sqrt{2})$

18.  $(\sqrt{50} + \sqrt{27})(\sqrt{2} - \sqrt{6})$

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

20.  $\frac{6}{\sqrt{2} - 1}$

21.  $\frac{5 + \sqrt{3}}{4 + \sqrt{3}}$

22.  $\frac{6}{2 - \sqrt{7}}$

23.  $\sqrt[3]{144} + \sqrt[3]{\frac{2}{3}} - 5\sqrt[3]{18}$

24.  $\sqrt{\frac{3}{8}} + \sqrt{54} - \sqrt{6}$