

Review  
Standard 1A-1B

## Simplify

1.  $3x^{\frac{1}{3}} \cdot x^0$

2.  $m \cdot 2m^2 \cdot 3m^{\frac{3}{2}}$

3.  $4x^{\frac{1}{2}}y^{\frac{3}{4}}z^{\frac{-1}{3}} \cdot 6x^{\frac{1}{2}}y^{\frac{1}{2}}z^{\frac{1}{3}}$

4.  $\left(3x^{\frac{3}{4}}\right)^4$

5.  $2\left(x^{\frac{1}{2}}\right)^4$

6.  $\left(\frac{8x}{27y}\right)^{\frac{1}{3}}$

7.  $\frac{2x^{\frac{3}{5}}y^{\frac{-1}{2}}}{12x^{\frac{2}{5}}y^{\frac{3}{2}}}$

8.  $\left(\frac{16x^4y^{\frac{1}{4}}z^{\frac{-1}{6}}}{25x^3y^{\frac{-3}{4}}z^{\frac{1}{3}}}\right)^{-\frac{1}{2}}$

9.  $\sqrt{48}$

10.  $\sqrt{128}$

11.  $3\sqrt{25x^3y^2}$

12.  $4\sqrt[3]{54x^5yz^4}$

13.  $\frac{8+\sqrt{48}}{4}$

14.  $\frac{12+\sqrt{18}}{6}$

Write the radical in rational exponent form and the rational exponent in radical form.

15.  $\sqrt[5]{7^3}$

16.  $(\sqrt[3]{5})^7$

17.  $\sqrt[5]{2a^2b^3}$

18.  $2^{\frac{2}{3}}$

19.  $5x^{\frac{1}{4}}$

20.  $(3x)^{\frac{5}{6}}$

## 2.1 Adding and Subtracting Polynomials

**Simplify. Write the polynomial in standard form. Then name each polynomial based on its degree and number of terms.**

21.  $-2x^3 - 5x^2 + x^4 + 2x^3 - 2x^5$

22.  $(2x^3 - 5x^2 + 4) + (3x^3 - 2x^2)$

23.  $(4r + r - 6) + (-2r + r)$

24.  $(5m^2 - m - 6) - (-m + 3m^2)$

25.  $(x^2 - 4x - x^4) - (x - 3x^2 + 9)$

26.  $(r^3 + 2r^2 - 6r) + (3r^3 - r^2 + 7)$

27.  $(y^2 + 3y + 2) - (3y - 2)$

28.  $(5x^4 + x^2 - 3x) - (5x^4 + x^2 - 2x)$