

4. Rational exponents and radicals, rationalizing denominators

Multiple Choice Practice Problems

- 1 Simplify: $(8x^9y^{-6})^{\frac{1}{3}}$
- a. $2x^3y^2$
 - b. $\frac{2x^3}{y^2}$
 - c. $\frac{8x^3}{y^2}$
 - d. $\frac{x^3}{2y^2}$
 - e. $2x^3y^{-6}$
- 2 Simplify: $\sqrt{\frac{5x^{11}}{7y}}$
- a. $\frac{x^5\sqrt{5x}}{7y}$
 - b. $\frac{x^5\sqrt{35xy}}{7}$
 - c. $\frac{x^5\sqrt{35xy}}{y}$
 - d. $\frac{5x^5\sqrt{xy}}{7y}$
 - e. $\frac{x^5\sqrt{35xy}}{7y}$
- 3 Simplify: $(9\sqrt{5} - \sqrt{2})(\sqrt{5} + 3\sqrt{2})$
- a. $26\sqrt{10} + 39$
 - b. $27\sqrt{10} + 43$
 - c. $9\sqrt{5} - \sqrt{2} + 26\sqrt{10}$
 - d. $26\sqrt{10} + 47$
 - e. $28\sqrt{10} + 43$