

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. $28\sqrt{10} + 43$

