

Business PreCalculus MATH 1643 Section 004, Spring 2014
Worksheet 5

1. Rationalize the denominator of each expression:

a. $\frac{\sqrt{x+h}-\sqrt{x}}{\sqrt{x+h}+\sqrt{x}}$

b. $\frac{x}{\sqrt{2+x}}$

c. $\frac{a\sqrt{x+3}}{a\sqrt{x-3}}$

2. Simplify:

a. $\frac{\sqrt[3]{9x^2y^3}}{\sqrt[3]{3xy}}$

b. $\frac{\sqrt[4]{2m^2n^4} \cdot \sqrt[12]{m^6n^2}}{\sqrt[4]{2m^2n^3}}$

c. $\sqrt[5]{3a^4b^2} \cdot \sqrt[10]{7a^2b^6}$

3. Simplify each expression:

a. $\sqrt{48x^5y} - 4y\sqrt{3x^3y} + y\sqrt{3xy^3}$

b. $\sqrt[3]{16x} + 3\sqrt[3]{54x} - \sqrt[3]{2x}$

c. $2\sqrt{50x^5} + 7\sqrt{2x^3} - 3\sqrt{72x}$