

**Business PreCalculus**    MATH 1643 Section 004, Spring 2014  
**Homework 5: Due 1/31/2014**

---

1- Simplify each expression:

a.  $\sqrt{45x} + \sqrt{20x}$

b.  $\sqrt[3]{3x} + \sqrt[3]{375} - 2\sqrt[3]{24x}$

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

2- Rationalize the denominator of:

a.  $\frac{\sqrt{5}-\sqrt{2}}{\sqrt{5}+\sqrt{2}}$

b.  $\frac{x}{\sqrt{5}-2x}$

3- Simplify each expression:

a.  $(27x^6y^3)^{-\frac{2}{3}}$

b.  $(\frac{27x^{-5/2}}{y^{-3}})^{-1/3}$