Name: _____ Date: _____

BLM 4–9

Section 4.4 Extra Practice

1. Express each power as an equivalent radical.

a) $5^{\frac{3}{2}}$

b) $\left(27^2\right)^{\frac{2}{3}}$

c) $(4x^3)^{0.5}$

d) $\left(\frac{x^4}{y^2}\right)^{\frac{-3}{2}}$

e) $\left(x^6y\right)^{\frac{1}{3}}$

2. Express each radical as a power.

a) $\sqrt{(9x)^3}$

b) $\sqrt{\left(4x^2\right)^3}$

c) $\sqrt[3]{64x^6}$

d) $\sqrt[4]{x^0y^2}$

e) $9\sqrt[5]{x^{\frac{5}{2}}}$

3. Evaluate each expression. Give the result to four decimal places, if necessary.

a) $14^{\frac{3}{2}}$

b) $5(0.8)^{\frac{1}{3}}$

c) $\frac{\sqrt{9}}{\sqrt{12}}$

d) $\sqrt[3]{25}$

e) $-2\sqrt[4]{3}$

4. Express each mixed radical as an equivalent entire radical.

a) $5\sqrt{3}$

b) $\left(\frac{2}{5}\right)\sqrt{10}$

c) $2\sqrt[3]{4}$

d) $-4\sqrt[3]{2}$

e) $5\sqrt[3]{3}$

5. Express each entire radical as an equivalent mixed radical.

a) $\sqrt{180}$

b) $\sqrt{108}$

c) $\sqrt[3]{750}$

d) $\sqrt[3]{81}$

e) $\sqrt{486}$

6. Order each set of numbers from greatest to least. Describe the method you used.

a) $\sqrt{35}, \sqrt{\frac{5}{3}}, \sqrt[3]{45}, 3\sqrt{20}$

b) $4\sqrt{5}, 2\sqrt[3]{5}, \sqrt{60}, \sqrt[3]{4}$