

## Section 2.1 and 2.2 – Final Exam Prep

Answer the following three questions, show as many steps as you need to, write clearly and neatly.

1. Use the Exponent Radical Relationship to Simplify the Following

$$\sqrt[3]{8x^6y^9z^{12}}$$

$$(2^3(x^2)^3(y^3)^3(z^4)^3)^{1/3}$$

$$2x^2y^3z^4$$

Simplify the following

2.  $\sqrt{25x^6y^{11}}$

$$\sqrt{5^2(x^3)^2(y^5)^2 y}$$

$$5x^3y^5\sqrt{y}$$

3.  $\sqrt[6]{128x^6y^{12}}$

$$\sqrt[6]{2^6 \cdot 2 \cdot x^6 \cdot (y^2)^6}$$

$$2xy^2\sqrt{2}$$

4.  $\sqrt[3]{-32x^5y^7}$

$$-\sqrt[3]{2^3 \cdot 2^2 \cdot x^3 \cdot x^2 (y^2)^3 \cdot y}$$

$$-2xy^2\sqrt{4x^2y}$$