## Section 2.3 and 2.4 – Final Exam Prep

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

1. Perform the following operations

$$\sqrt{48} + \sqrt{8} - \sqrt{27} - \sqrt{32}$$

2. Perform the following operations

$$\frac{2}{3}\sqrt{12} - \frac{5}{2}\sqrt{48} + \frac{1}{4}\sqrt{108}$$

3. Perform the following operations

$$\left(3\sqrt{x} + \sqrt{y}\right)\left(3\sqrt{x} - \sqrt{y}\right)$$

4. Perform the following operations

$$\sqrt{2x}\left(\sqrt{2} - \sqrt{x}\right)$$

5. Rationalize the Denominator

$$\frac{5}{\sqrt[3]{2}}$$

6. Rationalize the Denominator

$$\frac{\sqrt{y}}{\sqrt{x} + \sqrt{y}}$$