

## **Supplements for Math 260S Lab Hour**

### **Laws of Exponents including fractional powers:**

1. Simplify:

$$(a^{-5}b^7c^{-2})(a^{-3}b^{-2}c^6)$$

2. Simplify:

$$\frac{10 x^{-4} y z^7}{-8 x^7 y^{-3} z^{-3}}$$

3. Simplify:

$$\left(\frac{-9 a^{-3} b^4 c^{-5}}{21 a^{-8} b^{-4} c^7}\right)^{-2}$$

4. Simplify:

$$\left(-\frac{1}{8}\right)^{-2/3}$$

5. Simplify:

$$\left(m^{\frac{2}{3}} n^{-\frac{1}{4}}\right)^{1/2}$$

6. Simplify:

$$\left(\frac{x^{-\frac{1}{3}} y^{\frac{2}{5}}}{x^{\frac{1}{4}} y^{-\frac{3}{4}}}\right)^{1/4}$$

7. Simplify:

$$\left(\frac{a^{-\frac{1}{5}} b^{-\frac{3}{2}}}{a^{-\frac{2}{3}} b^{-\frac{1}{6}}}\right)^0$$

8. Simplify:

$$\left(\frac{81 x^6}{y^{-2}}\right)^{-3/4}$$

9. Simplify:

$$5 x^0 - (-2)^0$$

10. Simplify:

$$(-3 y^{-2})^0 + 4 x^0$$