

MATH 111 WORKSHEET 2

Show all work for full credit.

1. Simplify each expression. Write all answers without using negative exponents.

a. $64^{-3/2}$

b. $(-27)^{-2/3}$

2. Add whenever possible. Simplify your answer.
(If you cannot add, you must explain why.)

a. $\sqrt{96x} + \sqrt{216x}$

b. $\sqrt[3]{32x^7} + \sqrt[3]{54x^7}$

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3. Rationalize the denominator. Simplify.

a. $\frac{3}{4+\sqrt{7}}$

b. $\frac{4-\sqrt{6}}{2+\sqrt{6}}$

4. Multiply the following polynomials.

a. $(x^2 + 3x - 4)(x + 5)$