Date_____

1. Use radical notation to write each expression. Simplify if possible.

a) $49^{1/2}$

Radical Notation	Simplified

b) $(-32)^{1/5}$

Radical Notation	Simplified

c) $16^{3/4}$

Radical Notation	Simplified

d) $\left(\frac{49}{25}\right)^{3/2}$

Radical Notation	Simplified

2.Use the properties of exponents to simplify each expression. Write with positive exponents only.

a) $x^{2/3}x^{5/3}$

b) $\frac{(3x^{1/4})^3}{x^{1/12}}$

3. Multiply

$x^{1/5}(x^{1/5} - 3)$

4. Factor the common from the given expression

$x^{-1/3}; \quad (5x^{-1/3} + x^{2/3})$

5. Use rational exponents to simplify each radical. Assume that all variables represent positive numbers.

a) $\sqrt[9]{y^3}$

With Rational Exponents	Simplified

b) $\sqrt[8]{4x^2}$

With Rational Exponents	Simplified

6. Use rational expressions to write as a single radical expression.

a) $\sqrt[3]{y} \cdot \sqrt[5]{y^2}$

b) $\frac{\sqrt[5]{b^2}}{\sqrt[10]{b^3}}$