

**I. Write each expression in radical form.**

1.) $x^{\frac{4}{3}}$	2.) $(ab)^{\frac{1}{4}}$	3.) $a^{1.5}$	4.) $t^{-\frac{2}{7}}$
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**II. Write each expression in rational exponent form.**

5.) $\sqrt[5]{n^4}$	6.) $\sqrt{5y}$	7.) $\sqrt[3]{2y^2}$	8.) $\sqrt{(6a)^4}$
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**III. Simplify each expression. Keep answers in rational exponent form.**

9.) $3x^{\frac{1}{2}} \cdot 4x^{\frac{2}{3}}$	10.) $\left(y^{\frac{2}{3}}\right)^{-9}$	11.) $\frac{12m^{\frac{1}{3}}}{4m^{\frac{1}{2}}}$	12.) $\left(3a^{\frac{1}{2}}b^{\frac{1}{3}}\right)^2$
13.) $\frac{x^{\frac{1}{2}}y^{\frac{2}{3}}}{x^{\frac{1}{3}}y^{\frac{1}{2}}}$	14.) $\left(a^{\frac{2}{3}}b^{-\frac{1}{2}}\right)^{-6}$	15.) $3\left(8a^{\frac{1}{4}}\right)^{\frac{1}{3}}$	16.) $\frac{4x^{\frac{4}{7}}}{8x^{\frac{2}{3}}}$
17.) $\left(16x^{\frac{2}{3}}\right)^{\frac{1}{2}} \cdot \left(6x^{\frac{1}{4}}\right)^{-2}$	18.) $\left(\frac{12x^8}{75y^{10}}\right)^{\frac{1}{2}}$	19.) $\left(\frac{x^{-\frac{1}{3}}y}{x^{\frac{2}{3}}y^{-\frac{1}{2}}}\right)^2$	20.) $\left(\frac{27x^6y^{10}}{64x^8y^4}\right)^{\frac{1}{3}}$