

Radical Expressions

$$\text{Ex: } \sqrt{50} = \sqrt{25} \sqrt{2}$$
$$\boxed{5\sqrt{2}}$$

$$\text{Ex: } \sqrt[3]{24} = \sqrt[3]{8} \sqrt{3}$$
$$2\sqrt{3}$$

$$\text{Ex: } \sqrt{x^5} = \sqrt{x^4} \sqrt{x}$$

$$\text{Ex: } \sqrt[3]{x^{11}} = x^3 \sqrt[3]{x^2} \quad \sqrt[3]{x^9} \cdot \sqrt[3]{x^2}$$
$$x^3 \sqrt[3]{x^2}$$

$$\text{Ex: } \sqrt{x^7 y^6 z^3} = x^3 y^3 z \sqrt{xz}$$

$$\text{Ex: } \sqrt[4]{x^{12} z^{15} y^5} = x^3 z^3 y \sqrt{z^3 y}$$

$$\text{Ex: } \sqrt[3]{54 a^3 b^7} \quad \boxed{3ab^2 \sqrt[3]{2b}}$$
$$\sqrt[3]{27} \sqrt[3]{2}$$
$$= 3\sqrt[3]{2}$$

$$\text{Ex: } \sqrt{98y^4} \quad \sqrt{49} \sqrt{2}$$
$$7y^2 \sqrt{2}$$

$$\text{Ex: } \sqrt{8a^2 b^3} \quad \sqrt{4} \sqrt{2} \sqrt{a^2} \sqrt{b^2} \sqrt{b}$$
$$2ab\sqrt{2b}$$