

$$\sqrt[6]{x^5} = x^{\frac{5}{6}}$$



$$\sqrt[7]{x^4} = x^{\frac{4}{7}}$$

$$\frac{x^{\frac{1}{3}}}{x^{\frac{2}{3}}} = x$$

$$x^{\frac{1}{2}} \cdot x^{\frac{1}{4}} = x^{\frac{3}{4}}$$

$$\sqrt[3]{x} = x^{\frac{1}{3}}$$

Format for Integration

Surds $\frac{m}{n}$
$$\sqrt[n]{x^m} = x^{\frac{m}{n}}$$

Indices $x^m \cdot x^n = x^{(m+n)}$
$$\frac{x^m}{x^n} = x^{(m-n)}$$

$$\sqrt[5]{x^{-2}} = x^{-\frac{2}{5}}$$

Basics before Integration

Working with fractions

Division

$$\frac{1}{2} \div \frac{4}{5} = \frac{5}{8}$$

Adding

$$\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$$

Subtracting

$$\frac{1}{2} - \frac{1}{3} = \frac{1}{6}$$

Multiplication

$$\frac{1}{2} \times \frac{3}{5} = \frac{3}{10}$$