Name

Basic Derivatives - Positive Fractional Power as Radical (with Rule) to Rewrite

1 Rewrite the function as a single power of x.

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

$$f(x) = \sqrt[3]{x}$$

A $x^{\frac{1}{3}}$

B $x^{-\frac{1}{3}}$

C x^3

2 Rewrite the function as a single power of x.

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

$$f(x) = \sqrt[3]{x^2}$$

A x^3

B $x^{-\frac{2}{3}}$

C $x^{\frac{2}{3}}$

D $x^{\frac{3}{2}}$

3 Rewrite the function as a single power of x.

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

$$f(x) = \sqrt{x^3}$$

A $x^{-\frac{3}{2}}$

B $x^{\frac{3}{2}}$

C $x^{\frac{2}{3}}$

D x^2

4 Rewrite the function as a single power of x.

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

$$f(x) = \sqrt[3]{x^4}$$

A x^3

B $x^{-\frac{4}{3}}$

C $x^{\frac{3}{4}}$

D $x^{\frac{4}{3}}$

5 Rewrite the function as a single power of x.

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

$$f(x) = \sqrt[3]{x^5}$$

A $x^{\frac{3}{5}}$

B $x^{\frac{5}{3}}$

C $x^{-\frac{5}{3}}$

D x^3

6 Rewrite the function as a single power of x.

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

$$f(x) = \sqrt{x^5}$$

A $x^{-\frac{5}{2}}$

B $x^{\frac{5}{2}}$

C $x^{\frac{2}{5}}$

D x^2

7 Rewrite the function as a single power of x.

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

$$f(x) = \sqrt{x}$$

A x^2

B $x^{-\frac{1}{2}}$

C $x^{\frac{1}{2}}$