Name

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

1 Rewrite the function as a single power of x.

$$\sqrt[n]{x^m} = x^{\frac{m}{n}}$$
$$f(x) = -\frac{4}{\sqrt[3]{x^2}}$$

A $-4x^{-3}$ B $-4x^{-\frac{3}{2}}$ C $-4x^{\frac{2}{3}}$ D $-4x^{-\frac{2}{3}}$

2 Rewrite the function as a single power of x.

$$\sqrt[n]{x^m} = x^{\frac{m}{n}}$$
$$f(x) = -\frac{6}{\sqrt{x}}$$

A $-6x^{-2}$ B $-6x^{\frac{1}{2}}$ C $-6x^{-\frac{1}{2}}$

3 Rewrite the function as a single power of x.

$$\sqrt[n]{x^m} = x^{\frac{m}{n}}$$
$$f(x) = -\frac{9}{\sqrt{x}}$$

A $-9x^{-\frac{1}{2}}$ B $-9x^{\frac{1}{2}}$ C $-9x^{-2}$

4 Rewrite the function as a single power of x.

$$\sqrt[n]{x^m} = x^{\frac{m}{n}}$$
$$f(x) = -\frac{8}{\sqrt{x}}$$

A $-8x^{\frac{1}{2}}$ B $-8x^{-\frac{1}{2}}$ C $-8x^{-2}$

5 Rewrite the function as a single power of x.

$$\sqrt[n]{x^m} = x^{\frac{m}{n}}$$
$$f(x) = -\frac{2}{\sqrt{x^3}}$$

A $-2x^{-2}$ B $-2x^{-\frac{3}{2}}$ C $-2x^{-\frac{2}{3}}$ D $-2x^{\frac{3}{2}}$

6 Rewrite the function as a single power of x.

$$\sqrt[n]{x^m} = x^{\frac{m}{n}}$$
$$f(x) = -\frac{2}{\sqrt[3]{x}}$$

A $-2x^{\frac{1}{3}}$ B $-2x^{-3}$ C $-2x^{-\frac{1}{3}}$

7 Rewrite the function as a single power of x.

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

A $4x^{-3}$ B $4x^{\frac{4}{3}}$ C $4x^{-\frac{4}{3}}$ D $4x^{-\frac{3}{4}}$

8 Rewrite the function as a single power of x.

$$\sqrt[n]{x^m} = x^{\frac{m}{n}}$$
$$f(x) = \frac{6}{\sqrt[3]{x^2}}$$

A $6x^{-3}$ B $6x^{-\frac{3}{2}}$ C $6x^{\frac{2}{3}}$ D $6x^{-\frac{2}{3}}$