Name

Exponents - Negative Fractional Exponents with Integer Base - Explanation to Radical

1 Given the hint, what is the fractional exponent the same as?

$$64^{\left(\frac{-1}{3}\right)} \cdot 64^{\left(\frac{-1}{3}\right)} \cdot 64^{\left(\frac{-1}{3}\right)} = \frac{1}{64}$$

$$64^{\left(\frac{-1}{3}\right)} = ?$$

A $\frac{1}{1}$ B $\frac{1}{\sqrt[3]{64}^2}$ C $\sqrt[3]{64}$ D $\frac{1}{3\sqrt[3]{64}}$ E $\frac{1}{2\sqrt[3]{64}}$ F $\frac{1}{\sqrt[3]{64}}$

2 Given the hint, what is the fractional exponent the same as?

$$36^{\left(\frac{-1}{2}\right)} \cdot 36^{\left(\frac{-1}{2}\right)} = \frac{1}{36}$$

$$36^{\left(\frac{-1}{2}\right)} = ?$$

A $\frac{1}{3\sqrt{36}}$ B $\frac{1}{1}$ C $\frac{1}{\sqrt{36}^2}$ D $\sqrt{36}$ E $\frac{1}{2\sqrt{36}}$ F $\frac{1}{\sqrt{36}}$

3 Given the hint, what is the fractional exponent the same as?

$$9^{\left(\frac{-1}{2}\right)} \cdot 9^{\left(\frac{-1}{2}\right)} = \frac{1}{9}$$

$$9^{\left(\frac{-1}{2}\right)} = ?$$

A $\frac{1}{\sqrt{9}}$ B $\frac{1}{\sqrt{2}}$ C $\frac{1}{4\sqrt{9}}$ D $\frac{1}{1}$ E $\frac{1}{5\sqrt{9}}$ F $\frac{1}{\sqrt{4}}$

4 Given the hint, what is the fractional exponent the same as?

$$81^{\left(\frac{-1}{4}\right)} \cdot 81^{\left(\frac{-1}{4}\right)} \cdot 81^{\left(\frac{-1}{4}\right)} \cdot 81^{\left(\frac{-1}{4}\right)} = \frac{1}{81}$$

$$81^{\left(\frac{-1}{4}\right)} = ?$$

A $\frac{1}{\sqrt[4]{81}^2}$ B $\frac{1}{1}$ C $\frac{1}{3\sqrt[4]{81}}$ D $\frac{1}{5\sqrt[4]{81}}$ E $\frac{1}{\sqrt[4]{81}}$ F $\frac{1}{4\sqrt[4]{81}}$

5 Given the hint, what is the fractional exponent the same as?

$$216^{\left(\frac{-1}{3}\right)} \cdot 216^{\left(\frac{-1}{3}\right)} \cdot 216^{\left(\frac{-1}{3}\right)} = \frac{1}{216}$$

$$216^{\left(\frac{-1}{3}\right)} = ?$$

A $\sqrt[3]{216}$ B $\frac{1}{1}$ C $\frac{1}{\sqrt[3]{216}^2}$ D $\frac{1}{\sqrt[3]{216}}$ E $\frac{1}{5\sqrt[3]{216}}$ F $\frac{1}{3\sqrt[3]{216}}$

6 Given the hint, what is the fractional exponent the same as?

$$16^{\left(\frac{-1}{4}\right)} \cdot 16^{\left(\frac{-1}{4}\right)} \cdot 16^{\left(\frac{-1}{4}\right)} \cdot 16^{\left(\frac{-1}{4}\right)} = \frac{1}{16}$$

$$16^{\left(\frac{-1}{4}\right)} = ?$$

A $\frac{1}{2\sqrt[4]{16}}$ B $\frac{1}{\sqrt[4]{16}}$ C $\frac{1}{\sqrt[4]{16}^2}$ D $\sqrt[4]{16}$ E $\sqrt[4]{16}^4$ F $\frac{1}{1}$

7 Given the hint, what is the fractional exponent the same as?

$$16^{\left(\frac{-1}{2}\right)} \cdot 16^{\left(\frac{-1}{2}\right)} = \frac{1}{16}$$

$$16^{\left(\frac{-1}{2}\right)} = ?$$

A $\frac{1}{5\sqrt{16}}$ B $\frac{1}{\sqrt{4}}$ C $\frac{1}{4\sqrt{16}}$ D $\frac{1}{1}$ E $\frac{1}{\sqrt{16}^2}$ F $\frac{1}{\sqrt{16}}$

8 Given the hint, what is the fractional exponent the same as?

$$8^{\left(\frac{-1}{3}\right)} \cdot 8^{\left(\frac{-1}{3}\right)} \cdot 8^{\left(\frac{-1}{3}\right)} = \frac{1}{8}$$

$$8^{\left(\frac{-1}{3}\right)} = ?$$

A $\frac{1}{\sqrt[3]{8}}$ B $\sqrt[3]{8}$ C $\frac{1}{\sqrt[3]{8}^2}$ D $\frac{1}{4\sqrt[3]{8}}$ E $\frac{1}{3\sqrt[3]{8}}$ F $\frac{1}{1}$