



Exponents - Negative Fractional Exponents with Integer Base -

Explanation to Answer

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

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

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

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|------------------|-----------------|-----------------|-----------------|--------------------|-------------------|
| A $\sqrt[4]{64}$ | B $\frac{1}{3}$ | C $\frac{1}{4}$ | D $\frac{1}{5}$ | E $\frac{1}{64^2}$ | F $\frac{1}{4^2}$ |
|------------------|-----------------|-----------------|-----------------|--------------------|-------------------|

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

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

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

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|-------------------|---------------------|-------------------|-----------------|-----------------|-----------------|
| A $\frac{1}{6^2}$ | B $\frac{1}{216^2}$ | C $\sqrt[4]{216}$ | D $\frac{1}{6}$ | E $\frac{1}{5}$ | F $\frac{1}{7}$ |
|-------------------|---------------------|-------------------|-----------------|-----------------|-----------------|

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

$$4^{(\frac{-1}{2})} \cdot 4^{(\frac{-1}{2})} = \frac{1}{4}$$

$$4^{(\frac{-1}{2})} = ?$$

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

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

$$25^{(\frac{-1}{2})} \cdot 25^{(\frac{-1}{2})} = \frac{1}{25}$$

$$25^{(\frac{-1}{2})} = ?$$

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|-----------------|-----------------|-----------------|-------------------|--------------------|------------------|
| A $\frac{1}{5}$ | B $\frac{1}{4}$ | C $\frac{1}{6}$ | D $\frac{1}{5^2}$ | E $\frac{1}{25^2}$ | F $\sqrt[3]{25}$ |
|-----------------|-----------------|-----------------|-------------------|--------------------|------------------|

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

$$27^{(\frac{-1}{3})} \cdot 27^{(\frac{-1}{3})} \cdot 27^{(\frac{-1}{3})} = \frac{1}{27}$$

$$27^{(\frac{-1}{3})} = ?$$

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|-----------------|-------------------|------------------|-----------------|--------------------|-----------------|
| A $\frac{1}{4}$ | B $\frac{1}{3^2}$ | C $\sqrt[4]{27}$ | D $\frac{1}{3}$ | E $\frac{1}{27^2}$ | F $\frac{1}{2}$ |
|-----------------|-------------------|------------------|-----------------|--------------------|-----------------|

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

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

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

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|------------------|-----------------|-----------------|-----------------|--------------------|-------------------|
| A $\sqrt[3]{36}$ | B $\frac{1}{7}$ | C $\frac{1}{6}$ | D $\frac{1}{5}$ | E $\frac{1}{36^2}$ | F $\frac{1}{6^2}$ |
|------------------|-----------------|-----------------|-----------------|--------------------|-------------------|

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

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

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

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

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

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

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

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|-----------------|-----------------|------------------|--------------------|-----------------|-------------------|
| A $\frac{1}{2}$ | B $\frac{1}{1}$ | C $\sqrt[5]{16}$ | D $\frac{1}{16^2}$ | E $\frac{1}{3}$ | F $\frac{1}{2^2}$ |
|-----------------|-----------------|------------------|--------------------|-----------------|-------------------|