



Exponents - Negative Fractional Exponents with Square Integer Base - Exponent to Factored Exponent

1 Factor the base number and simplify to make it easier to solve

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

A	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 3 \cdot 11)^{\left(\frac{1}{3}\right)}}$	B	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 3 \cdot 13)^{\left(\frac{1}{3}\right)}}$
C	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 3)^{\left(\frac{1}{3}\right)}}$	D	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 3)^{\left(\frac{1}{3}\right)}}$
E	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 9 \cdot 3)^{\left(\frac{1}{3}\right)}}$	F	$\frac{1}{(2 \cdot 2 \cdot 3 \cdot 3 \cdot 3)^{\left(\frac{1}{3}\right)}}$

2 Factor the base number and simplify to make it easier to solve

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

A	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{1}{2}\right)}}$	B	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 5)^{\left(\frac{1}{2}\right)}}$
C	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 3)^{\left(\frac{1}{2}\right)}}$	D	$\frac{1}{(2 \cdot 2 \cdot 4)^{\left(\frac{1}{2}\right)}}$
E	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{1}{2}\right)}}$	F	$\frac{1}{(2 \cdot 2 \cdot 2)^{\left(\frac{1}{2}\right)}}$

3 Factor the base number and simplify to make it easier to solve

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

A	$\frac{1}{(3 \cdot 3 \cdot 7)^{\left(\frac{1}{2}\right)}}$	B	$\frac{1}{(3 \cdot 3)^{\left(\frac{1}{2}\right)}}$	C	$\frac{1}{(3 \cdot 3 \cdot 13)^{\left(\frac{1}{2}\right)}}$
D	$\frac{1}{(3 \cdot 3 \cdot 5)^{\left(\frac{1}{2}\right)}}$	E	$\frac{1}{(3 \cdot 3 \cdot 3)^{\left(\frac{1}{2}\right)}}$	F	$\frac{1}{(3 \cdot 3 \cdot 11)^{\left(\frac{1}{2}\right)}}$

4 Factor the base number and simplify to make it easier to solve

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

A	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 4)^{\left(\frac{1}{3}\right)}}$	B	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3)^{\left(\frac{1}{3}\right)}}$
C	$\frac{1}{(2 \cdot 2 \cdot 4 \cdot 2 \cdot 2)^{\left(\frac{1}{3}\right)}}$	D	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{1}{3}\right)}}$
E	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 13)^{\left(\frac{1}{3}\right)}}$	F	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{1}{3}\right)}}$

5 Factor the base number and simplify to make it easier to solve

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

A	$\frac{1}{(3 \cdot 3 \cdot 3 \cdot 3 \cdot 5)^{\left(\frac{1}{4}\right)}}$	B	$\frac{1}{(3 \cdot 3 \cdot 9)^{\left(\frac{1}{4}\right)}}$
C	$\frac{1}{(3 \cdot 3 \cdot 3)^{\left(\frac{1}{4}\right)}}$	D	$\frac{1}{(3 \cdot 9 \cdot 3)^{\left(\frac{1}{4}\right)}}$
E	$\frac{1}{(3 \cdot 3 \cdot 3 \cdot 3 \cdot 11)^{\left(\frac{1}{4}\right)}}$	F	$\frac{1}{(3 \cdot 3 \cdot 3 \cdot 3)^{\left(\frac{1}{4}\right)}}$

6 Factor the base number and simplify to make it easier to solve

$$125^{\left(\frac{-1}{3}\right)}$$

A	$\frac{1}{(5 \cdot 5 \cdot 5 \cdot 7)^{\left(\frac{1}{3}\right)}}$	B	$\frac{1}{(5 \cdot 5 \cdot 5 \cdot 11)^{\left(\frac{1}{3}\right)}}$
C	$\frac{1}{(3 \cdot 5 \cdot 5 \cdot 5)^{\left(\frac{1}{3}\right)}}$	D	$\frac{1}{(5 \cdot 5 \cdot 5)^{\left(\frac{1}{3}\right)}}$
E	$\frac{1}{(2 \cdot 5 \cdot 5 \cdot 5)^{\left(\frac{1}{3}\right)}}$	F	$\frac{1}{(5 \cdot 5 \cdot 5 \cdot 5)^{\left(\frac{1}{3}\right)}}$

7 Factor the base number and simplify to make it easier to solve

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

A	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{1}{4}\right)}}$	B	$\frac{1}{(2 \cdot 4 \cdot 2)^{\left(\frac{1}{4}\right)}}$
C	$\frac{1}{(2 \cdot 2 \cdot 2)^{\left(\frac{1}{4}\right)}}$	D	$\frac{1}{(2 \cdot 2 \cdot 4)^{\left(\frac{1}{4}\right)}}$
E	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 5)^{\left(\frac{1}{4}\right)}}$	F	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{1}{4}\right)}}$

8 Factor the base number and simplify to make it easier to solve

$$25^{\left(\frac{-1}{2}\right)}$$

A	$\frac{1}{(5 \cdot 5 \cdot 11)^{\left(\frac{1}{2}\right)}}$	B	$\frac{1}{(5 \cdot 5 \cdot 7)^{\left(\frac{1}{2}\right)}}$	C	$\frac{1}{(3 \cdot 5 \cdot 5)^{\left(\frac{1}{2}\right)}}$
D	$\frac{1}{(5 \cdot 5 \cdot 13)^{\left(\frac{1}{2}\right)}}$	E	$\frac{1}{(5 \cdot 5)^{\left(\frac{1}{2}\right)}}$	F	$\frac{1}{(5 \cdot 5 \cdot 5)^{\left(\frac{1}{2}\right)}}$