



Math worksheet on 'Exponents - Negative Fractional Exponents with Square Integer Base - Exponent to Factored Exponent (Level 1)'. Part of a broader unit on 'Exponents - Fractional Bases and Exponents - Practice'

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

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

a	b	c
$\frac{1}{(5 \cdot 5 \cdot 13)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(5 \cdot 5 \cdot 7)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(5 \cdot 5 \cdot 11)^{\left(\frac{1}{2}\right)}}$
d	e	f
$\frac{1}{(5 \cdot 5)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(3 \cdot 5 \cdot 5)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(5 \cdot 5 \cdot 5)^{\left(\frac{1}{2}\right)}}$

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

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

a	b
$\frac{1}{(2 \cdot 3 \cdot 3)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 3)^{\left(\frac{1}{2}\right)}}$
c	d
$\frac{1}{(2 \cdot 2 \cdot 3 \cdot 3)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 9)^{\left(\frac{1}{2}\right)}}$
e	f
$\frac{1}{(2 \cdot 2 \cdot 3 \cdot 3 \cdot 11)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 3 \cdot 3)^{\left(\frac{1}{2}\right)}}$

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

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

a	b
$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 3)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 4)^{\left(\frac{1}{2}\right)}}$
c	d
$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{1}{2}\right)}}$
e	f
$\frac{1}{(2 \cdot 2 \cdot 2)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 2 \cdot 2 \cdot 5)^{\left(\frac{1}{2}\right)}}$

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

$$4^{\left(\frac{-1}{2}\right)}$$

a	b	c
$\frac{1}{(2 \cdot 2)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 5)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 2)^{\left(\frac{1}{2}\right)}}$
d	e	f
$\frac{1}{(2 \cdot 2 \cdot 7)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 11)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(2 \cdot 2 \cdot 13)^{\left(\frac{1}{2}\right)}}$

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

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

a	b	c
$\frac{1}{(3 \cdot 3 \cdot 7)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(3 \cdot 3 \cdot 13)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(3 \cdot 3 \cdot 3)^{\left(\frac{1}{2}\right)}}$
d	e	f
$\frac{1}{(3 \cdot 3 \cdot 11)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(3 \cdot 3 \cdot 5)^{\left(\frac{1}{2}\right)}}$	$\frac{1}{(3 \cdot 3)^{\left(\frac{1}{2}\right)}}$