



Math worksheet on 'Exponents - Fractional Exponents with Non-Square Integer Base - Exponent to Simplified Radical (Level 2)'. Part of a broader unit on 'Exponents - Negative and Fractional Bases and Exponents'

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1 Find the answer when this number is raised to its exponent

$16^{(\frac{1}{2})}$

a	b	c
$4\sqrt{3}$	$4\sqrt{4}$	5
d	e	f
1	$4\sqrt{2}$	4

2 Find the answer when this number is raised to its exponent

$24^{(\frac{1}{2})}$

a	b	c
$5\sqrt{6}$	2	$2\sqrt{3}$
d	e	f
$\sqrt{6}$	$2\sqrt{2}$	$2\sqrt{6}$

3 Find the answer when this number is raised to its exponent

$108^{(\frac{1}{3})}$

a	b	c
$2\sqrt[3]{4}$	$\sqrt[3]{4}$	$3\sqrt[3]{3}$
d	e	f
3	$3\sqrt[3]{2}$	$3\sqrt[3]{4}$

4 Find the answer when this number is raised to its exponent

$75^{(\frac{1}{2})}$

a	b	c
$3\sqrt{3}$	$5\sqrt{3}$	$4\sqrt{3}$
d	e	f
5	$\sqrt{3}$	$5\sqrt{4}$

5 Find the answer when this number is raised to its exponent

$48^{(\frac{1}{4})}$

a	b	c
$4\sqrt[4]{3}$	$\sqrt[4]{3}$	$3\sqrt[4]{3}$
d	e	f
$2\sqrt[4]{3}$	2	$5\sqrt[4]{3}$

6 Find the answer when this number is raised to its exponent

$32^{(\frac{1}{2})}$

a	b	c
$4\sqrt{2}$	$4\sqrt{4}$	$\sqrt{2}$
d	e	f
$5\sqrt{2}$	$2\sqrt{2}$	4

7 Find the answer when this number is raised to its exponent

$72^{(\frac{1}{2})}$

a	b	c
$\sqrt{2}$	$6\sqrt{2}$	$2\sqrt{2}$
d	e	f
$6\sqrt{4}$	$6\sqrt{3}$	6