



Math worksheet on 'Exponents - Negative 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

$$50^{\left(\frac{-1}{2}\right)}$$

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

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

$$144^{\left(\frac{-1}{2}\right)}$$

a	$\frac{1}{12\sqrt{3}}$	b	$\frac{1}{1}$	c	$\frac{1}{3}$
d	$\frac{1}{12}$	e	$\frac{1}{12\sqrt{4}}$	f	$\frac{1}{12\sqrt{2}}$

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

$$108^{\left(\frac{-1}{2}\right)}$$

a	$\frac{1}{\sqrt{3}}$	b	$\frac{1}{6}$	c	$\frac{1}{4\sqrt{3}}$
d	$\frac{1}{2\sqrt{3}}$	e	$\frac{1}{6\sqrt{3}}$	f	$\frac{1}{5\sqrt{3}}$

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

$$250^{\left(\frac{-1}{3}\right)}$$

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

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

$$32^{\left(\frac{-1}{3}\right)}$$

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

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

$$128^{\left(\frac{-1}{3}\right)}$$

a	$\frac{1}{4}$	b	$\frac{1}{\sqrt[3]{2}}$	c	$\frac{1}{5\sqrt[3]{2}}$
d	$\frac{1}{4\sqrt[3]{2}}$				

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

$$48^{\left(\frac{-1}{2}\right)}$$

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