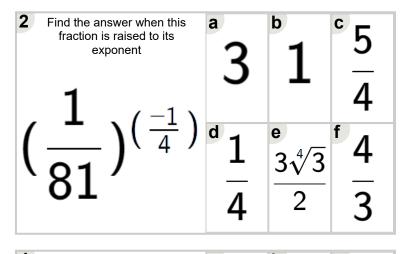# mobius

Math worksheet on *'Exponents - Negative Fractional Exponents with Unit Fractional Base (Level 2)'*. Part of a broader unit on *'Exponents - Negative and Fractional Bases and Exponents'*
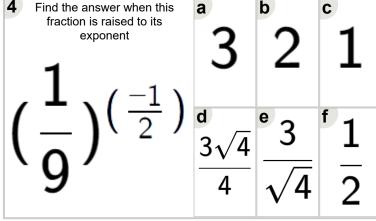
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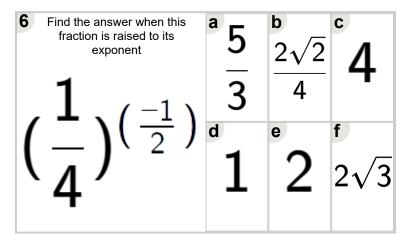app.mobius.academy/math/units/exponents_negative_and_fractional_bases_review/

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

$$\left(\frac{1}{32}\right)^{\left(\frac{-1}{5}\right)}$$

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

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

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

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

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

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

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

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

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

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

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

$$\left(\frac{1}{27}\right)^{\left(\frac{-1}{3}\right)}$$

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

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

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

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

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

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

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