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

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

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

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

$$\left(\frac{1}{49}\right)^{\left(\frac{-1}{2}\right)}$$

a	b	c
5	$\frac{5}{\sqrt{4}}$	7
d	**e**	**f**
$\frac{1}{4}$	$7\sqrt{2}$	$\frac{1}{5}$

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

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

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

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

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

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

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

$$\left(\frac{1}{121}\right)^{\left(\frac{-1}{2}\right)}$$

a	b	c
11	4	$\frac{1}{\sqrt{2}}$
d	**e**	**f**
1	$\frac{11\sqrt{3}}{2}$	$11\sqrt{4}$

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

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

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

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

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

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