



Math worksheet on 'Exponents - Negative Fractional Exponents with 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

$$\left(\frac{9}{121}\right)^{\left(\frac{-1}{2}\right)}$$

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

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

$$\left(\frac{49}{121}\right)^{\left(\frac{-1}{2}\right)}$$

<b>a</b> $\frac{11}{7}$	<b>b</b> $\frac{1}{4}$	<b>c</b> $\frac{11}{2}$
<b>d</b> $\frac{11}{3}$	<b>e</b> $\frac{4}{7}$	<b>f</b> $1$

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

$$\left(\frac{27}{125}\right)^{\left(\frac{-1}{3}\right)}$$

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

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

$$\left(\frac{121}{25}\right)^{\left(\frac{-1}{2}\right)}$$

<b>a</b> $\frac{4}{4}$	<b>b</b> $\frac{5}{11}$	<b>c</b> $1$
<b>d</b> $5$	<b>e</b> $\frac{1}{5}$	<b>f</b> $\frac{1}{11\sqrt{4}}$

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

$$\left(\frac{9}{49}\right)^{\left(\frac{-1}{2}\right)}$$

<b>a</b> $\frac{7\sqrt{3}}{3}$	<b>b</b> $7$	<b>c</b> $\frac{7}{3}$
<b>d</b> $3$	<b>e</b> $1$	<b>f</b> $7\sqrt{4}$

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

$$\left(\frac{4}{49}\right)^{\left(\frac{-1}{2}\right)}$$

<b>a</b> $\frac{2}{2}$	<b>b</b> $\frac{1}{2\sqrt{4}}$	<b>c</b> $2$
<b>d</b> $3$	<b>e</b> $\frac{1}{2}$	<b>f</b> $\frac{7}{2}$

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

$$\left(\frac{4}{9}\right)^{\left(\frac{-1}{2}\right)}$$

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