



Math worksheet on 'Exponents - Negative Fractional Exponents with Unit Fractional Base (Level 1)'. 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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