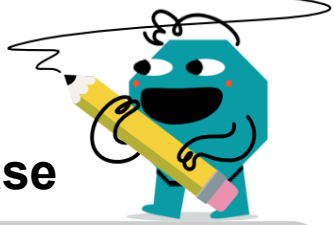
Name



# Exponents - Negative Fractional Exponents with Non-Square Integer Base - Factored Exponent to Answer

**1** Find the answer when this factored number is raised to its exponent

$$(2 \cdot 2 \cdot 3 \cdot 3 \cdot 3)^{\left(\frac{-1}{2}\right)}$$

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $\frac{1}{5\sqrt{3}}$ | $\frac{1}{2\sqrt{3}}$ | $\frac{1}{3\sqrt{3}}$ | $\frac{1}{\sqrt{3}}$ | $\frac{1}{6\sqrt{3}}$ | $\frac{1}{6}$ |

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

$$(3 \cdot 5 \cdot 5)^{\left(\frac{-1}{2}\right)}$$

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $\frac{1}{5\sqrt{3}}$ | $\frac{1}{5}$ | $\frac{1}{4\sqrt{3}}$ | $\frac{1}{5\sqrt{4}}$ | $\frac{1}{5\sqrt{2}}$ | $\frac{1}{\sqrt{3}}$ |

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

$$(2 \cdot 2 \cdot 2 \cdot 3 \cdot 3)^{\left(\frac{-1}{2}\right)}$$

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $\frac{1}{4\sqrt{2}}$ | $\frac{1}{6}$ | $\frac{1}{6\sqrt{3}}$ | $\frac{1}{6\sqrt{2}}$ | $\frac{1}{2\sqrt{2}}$ | $\frac{1}{\sqrt{2}}$ |

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

$$(2 \cdot 2 \cdot 3)^{\left(\frac{-1}{2}\right)}$$

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $\frac{1}{5\sqrt{3}}$ | $\frac{1}{2}$ | $\frac{1}{2\sqrt{3}}$ | $\frac{1}{3\sqrt{3}}$ | $\frac{1}{\sqrt{3}}$ | $\frac{1}{4\sqrt{3}}$ |

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

$$(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3)^{\left(\frac{-1}{2}\right)}$$

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $\frac{1}{4}$ | $\frac{1}{4\sqrt{6}}$ | $\frac{1}{4\sqrt{4}}$ | $\frac{1}{3\sqrt{6}}$ | $\frac{1}{\sqrt{6}}$ | $\frac{1}{5\sqrt{6}}$ |

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

$$(2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2)^{\left(\frac{-1}{3}\right)}$$

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $\frac{1}{4\sqrt[3]{2}}$ | $\frac{1}{4\sqrt[3]{3}}$ | $\frac{1}{5\sqrt[3]{2}}$ | $\frac{1}{4}$ | $\frac{1}{2\sqrt[3]{2}}$ | $\frac{1}{\sqrt[3]{2}}$ |

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

$$(2 \cdot 2 \cdot 2 \cdot 3)^{\left(\frac{-1}{3}\right)}$$

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $\frac{1}{2}$ | $\frac{1}{3\sqrt[3]{3}}$ | $\frac{1}{2\sqrt[3]{3}}$ | $\frac{1}{2\sqrt[3]{4}}$ | $\frac{1}{5\sqrt[3]{3}}$ | $\frac{1}{\sqrt[3]{3}}$ |

**8** Find the answer when this factored number is raised to its exponent

$$(2 \cdot 5 \cdot 5)^{\left(\frac{-1}{2}\right)}$$

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| $\frac{1}{3\sqrt{2}}$ | $\frac{1}{5}$ | $\frac{1}{5\sqrt{4}}$ | $\frac{1}{2\sqrt{2}}$ | $\frac{1}{5\sqrt{2}}$ | $\frac{1}{5\sqrt{3}}$ |