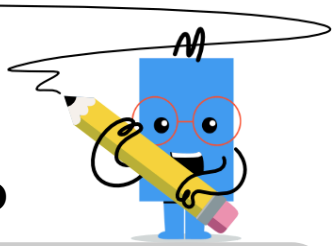
Name

# Exponents - Fractional Exponents with Non-Square Integer Base - Exponent to Unsimplified Radical



**1** Find the radical that is the same as this number raised to its exponent

$40^{\left(\frac{1}{3}\right)}$

A $5\sqrt[3]{40}$ B $3\sqrt[3]{40}$ C $1$

D $2\sqrt[3]{40}$ E $\sqrt[3]{40}$ F $\sqrt[3]{4}$

**2** Find the radical that is the same as this number raised to its exponent

$18^{\left(\frac{1}{2}\right)}$

A $\sqrt{18}^2$ B $\frac{1}{\sqrt{18}}$ C $3\sqrt{18}$

D $\sqrt{18}$ E $1$

**3** Find the radical that is the same as this number raised to its exponent

$16^{\left(\frac{1}{2}\right)}$

A $\frac{1}{\sqrt{16}}$ B $3\sqrt{16}$ C $1$

D $2\sqrt{16}$ E $\sqrt{16}^2$ F $\sqrt{16}$

**4** Find the radical that is the same as this number raised to its exponent

$48^{\left(\frac{1}{4}\right)}$

A $4\sqrt[4]{48}$ B $\sqrt[4]{48}$ C $5\sqrt[4]{48}$

D $1$ E $2\sqrt[4]{48}$ F $\frac{1}{\sqrt[4]{48}}$

**5** Find the radical that is the same as this number raised to its exponent

$150^{\left(\frac{1}{2}\right)}$

A $\frac{1}{\sqrt{150}}$ B $5\sqrt{150}$ C $3\sqrt{150}$

D $\sqrt{150}$ E $4\sqrt{150}$ F $1$

**6** Find the radical that is the same as this number raised to its exponent

$144^{\left(\frac{1}{2}\right)}$

A $5\sqrt{144}$ B $1$ C $\sqrt{144}$

D $\frac{1}{\sqrt{144}}$ E $4\sqrt{144}$ F $\sqrt{144}^2$

**7** Find the radical that is the same as this number raised to its exponent

$75^{\left(\frac{1}{2}\right)}$

A $4\sqrt{75}$ B $\frac{1}{\sqrt{75}}$ C $1$

D $\sqrt{75}$ E $2\sqrt{75}$ F $\sqrt{75}^2$

**8** Find the radical that is the same as this number raised to its exponent

$250^{\left(\frac{1}{3}\right)}$

A $5\sqrt[3]{250}$ B $1$ C $2\sqrt[3]{250}$

D $\sqrt[3]{250}$ E $4\sqrt[3]{250}$ F $\frac{1}{\sqrt[3]{250}}$