



Math worksheet on 'Radicals - Convert Cube Root, Values and Variables, to Exponents - Negative (Level 1)'. Part of a broader unit on 'Radicals - Simplifying Practice'

Learn online: app.mobius.academy/math/units/radicals_simplifying_practice/

1 Convert the radical to a fractional exponent

$$\frac{1}{\sqrt[3]{11d^4}}$$

a $11^{-\frac{1}{3}} \cdot d^{-\frac{6}{3}}$	b $33^{-\frac{1}{3}} \cdot d^{-\frac{4}{3}}$
c $11^{\frac{1}{3}} \cdot d^{\frac{4}{3}}$	d $44^{-\frac{1}{3}} \cdot d^{-\frac{4}{3}}$
e $11^{-\frac{1}{2}} \cdot d^{-\frac{4}{2}}$	f $11^{-\frac{1}{3}} \cdot d^{-\frac{4}{3}}$

2 Convert the radical to a fractional exponent

$$\frac{1}{\sqrt[3]{2y^2}}$$

a $2^{-\frac{1}{3}} \cdot y^{-\frac{2}{3}}$	b $6^{-\frac{1}{3}} \cdot y^{-\frac{2}{3}}$	c $2^{\frac{1}{3}} \cdot y^{\frac{2}{3}}$
d $4^{-\frac{1}{3}} \cdot y^{-\frac{2}{3}}$	e $2^{-\frac{1}{2}} \cdot y^{-\frac{2}{2}}$	f $8^{-\frac{1}{3}} \cdot y^{-\frac{2}{3}}$

3 Convert the radical to a fractional exponent

$$\frac{1}{\sqrt[3]{11x^4}}$$

a $33^{-\frac{1}{3}} \cdot x^{-\frac{4}{3}}$	b $11^{-\frac{1}{3}} \cdot x^{-\frac{3}{3}}$
c $11^{-\frac{1}{3}} \cdot x^{-\frac{4}{3}}$	d $11^{-\frac{1}{2}} \cdot x^{-\frac{4}{2}}$
e $44^{-\frac{1}{3}} \cdot x^{-\frac{4}{3}}$	f $22^{-\frac{1}{3}} \cdot x^{-\frac{4}{3}}$

4 Convert the radical to a fractional exponent

$$\frac{1}{\sqrt[3]{3p}}$$

a $9^{-\frac{1}{3}} \cdot p^{-\frac{1}{3}}$	b $3^{\frac{1}{3}} \cdot p^{\frac{1}{3}}$
c $3^{-\frac{1}{3}} \cdot p^{-\frac{2}{3}}$	d $3^{-\frac{1}{3}} \cdot p^{-\frac{1}{3}}$
e $3^{-\frac{1}{3}}$	f $12^{-\frac{1}{3}} \cdot p^{-\frac{1}{3}}$

5 Convert the radical to a fractional exponent

$$\frac{1}{\sqrt[3]{11r^4}}$$

a $11^{-\frac{1}{3}} \cdot r^{-\frac{6}{3}}$	b $11^{\frac{1}{3}} \cdot r^{\frac{4}{3}}$
c $33^{-\frac{1}{3}} \cdot r^{-\frac{4}{3}}$	d $11^{-\frac{1}{3}} \cdot r^{-\frac{5}{3}}$
e $11^{-\frac{1}{3}} \cdot r^{-\frac{4}{3}}$	f $11^{-\frac{1}{3}} \cdot r^{-\frac{3}{3}}$

6 Convert the radical to a fractional exponent

$$\frac{1}{\sqrt[3]{3d}}$$

a $3^{-\frac{1}{3}} \cdot d^{-\frac{1}{3}}$	b $12^{-\frac{1}{3}} \cdot d^{-\frac{1}{3}}$
c $3^{-\frac{1}{2}} \cdot d^{-\frac{1}{2}}$	d $3^{-\frac{1}{3}} \cdot d^{-\frac{3}{3}}$
e $6^{-\frac{1}{3}} \cdot d^{-\frac{1}{3}}$	f $3^{\frac{1}{3}} \cdot d^{\frac{1}{3}}$

7 Convert the radical to a fractional exponent

$$\frac{1}{\sqrt[3]{11m^2}}$$

a $33^{-\frac{1}{3}} \cdot m^{-\frac{2}{3}}$	b $11^{-\frac{1}{3}} \cdot m^{-\frac{3}{3}}$
c $11^{-\frac{1}{2}} \cdot m^{-\frac{2}{2}}$	d $11^{-\frac{1}{3}} \cdot m^{-\frac{2}{3}}$
e $44^{-\frac{1}{3}} \cdot m^{-\frac{2}{3}}$	f $11^{-\frac{1}{3}} \cdot m^{-\frac{4}{3}}$