



Math worksheet on 'Radicals - Convert Cube Root, Values and Variables, to Exponents - Negative (Level 2)'. Part of a broader unit on 'Radicals - Simplifying Advanced'

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

1 $\sqrt[3]{3md^5}$	a $3^{-\frac{1}{3}} \cdot m^{-\frac{1}{3}} \cdot d^{-\frac{7}{3}}$	b $3^{\frac{1}{3}} \cdot m^{\frac{1}{3}} \cdot d^{\frac{5}{3}}$
	c $3^{-\frac{1}{3}} \cdot d^{-\frac{6}{3}}$	d $3^{-\frac{1}{3}} \cdot d^{-\frac{5}{3}}$
	e $3^{-\frac{1}{2}} \cdot m^{-\frac{1}{2}} \cdot d^{-\frac{5}{2}}$	f $3^{-\frac{1}{3}} \cdot m^{-\frac{1}{3}} \cdot d^{-\frac{5}{3}}$

2 $\sqrt[3]{7x^4r^4}$	a $7^{-\frac{1}{3}} \cdot x^{-\frac{6}{3}} \cdot r^{-\frac{6}{3}}$	b $7^{-\frac{1}{3}} \cdot x^{-\frac{5}{3}} \cdot r^{-\frac{6}{3}}$
	c $7^{-\frac{1}{3}} \cdot x^{-\frac{6}{3}} \cdot r^{-\frac{4}{3}}$	d $28^{-\frac{1}{3}} \cdot x^{-\frac{4}{3}} \cdot r^{-\frac{4}{3}}$
	e $7^{-\frac{1}{3}} \cdot x^{-\frac{4}{3}} \cdot r^{-\frac{4}{3}}$	f $7^{-\frac{1}{3}} \cdot x^{-\frac{6}{3}} \cdot r^{-\frac{4}{3}}$

3 $\sqrt[3]{11pc^2}$	a $11^{-\frac{1}{2}} \cdot p^{-\frac{1}{2}} \cdot c^{-\frac{2}{2}}$	b $11^{-\frac{1}{3}} \cdot p^{-\frac{1}{3}} \cdot c^{-\frac{2}{3}}$
	c $11^{-\frac{1}{3}} \cdot p^{-\frac{1}{3}} \cdot c^{-\frac{4}{3}}$	d $22^{-\frac{1}{3}} \cdot p^{-\frac{1}{3}} \cdot c^{-\frac{2}{2}}$
	e $44^{-\frac{1}{3}} \cdot p^{-\frac{1}{3}} \cdot c^{-\frac{2}{2}}$	f $11^{\frac{1}{3}} \cdot p^{\frac{1}{3}} \cdot c^{\frac{2}{3}}$

4 $\sqrt[3]{5c^2m^5}$	a $5^{-\frac{1}{3}} \cdot c^{-\frac{2}{3}} \cdot m^{-\frac{5}{3}}$	b $15^{-\frac{1}{3}} \cdot c^{-\frac{2}{3}} \cdot m^{-\frac{5}{3}}$
	c $10^{-\frac{1}{3}} \cdot c^{-\frac{2}{3}} \cdot m^{-\frac{5}{3}}$	d $5^{\frac{1}{3}} \cdot c^{\frac{2}{3}} \cdot m^{\frac{5}{3}}$
	e $5^{-\frac{1}{3}} \cdot c^{-\frac{3}{3}} \cdot m^{-\frac{6}{3}}$	f $20^{-\frac{1}{3}} \cdot c^{-\frac{2}{3}} \cdot m^{-\frac{5}{3}}$

5 $\sqrt[3]{7m^4n^5}$	a $28^{-\frac{1}{3}} \cdot m^{-\frac{4}{3}} \cdot n^{-\frac{5}{3}}$	b $7^{-\frac{1}{3}} \cdot m^{-\frac{5}{3}} \cdot n^{-\frac{6}{3}}$
	c $7^{-\frac{1}{3}} \cdot m^{-\frac{6}{3}} \cdot n^{-\frac{6}{3}}$	d $7^{-\frac{1}{2}} \cdot m^{-\frac{4}{2}} \cdot n^{-\frac{5}{2}}$
	e $7^{-\frac{1}{3}} \cdot m^{-\frac{4}{3}} \cdot n^{-\frac{5}{3}}$	f $7^{\frac{1}{3}} \cdot m^{\frac{4}{3}} \cdot n^{\frac{5}{3}}$

6 $\sqrt[3]{11b^4z^4}$	a $22^{-\frac{1}{3}} \cdot b^{-\frac{4}{3}} \cdot z^{-\frac{4}{3}}$	b $11^{-\frac{1}{3}} \cdot b^{-\frac{5}{3}} \cdot z^{-\frac{5}{3}}$
	c $11^{-\frac{1}{2}} \cdot b^{-\frac{4}{2}} \cdot z^{-\frac{4}{2}}$	d $11^{-\frac{1}{3}} \cdot b^{-\frac{4}{3}} \cdot z^{-\frac{4}{3}}$
	e $11^{-\frac{1}{3}} \cdot b^{-\frac{4}{3}} \cdot z^{-\frac{5}{3}}$	f $11^{-\frac{1}{3}} \cdot b^{-\frac{3}{3}} \cdot z^{-\frac{4}{3}}$

7 $\sqrt[3]{2z^4c^4}$	a $2^{\frac{1}{3}} \cdot z^{\frac{4}{3}} \cdot c^{\frac{4}{3}}$	b $2^{-\frac{1}{3}} \cdot z^{-\frac{4}{3}} \cdot c^{-\frac{4}{3}}$
	c $2^{-\frac{1}{3}} \cdot z^{-\frac{6}{3}} \cdot c^{-\frac{4}{3}}$	d $4^{\frac{1}{3}} \cdot z^{-\frac{4}{3}} \cdot c^{-\frac{4}{3}}$
	e $2^{-\frac{1}{2}} \cdot z^{-\frac{4}{2}} \cdot c^{-\frac{4}{2}}$	f $2^{-\frac{1}{3}} \cdot z^{-\frac{6}{3}} \cdot c^{-\frac{5}{3}}$