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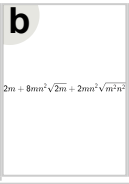
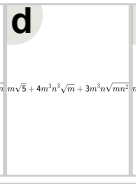
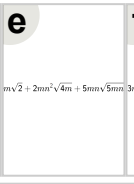
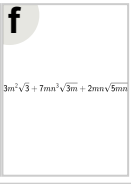
Math worksheet on *'Radicals - Adding and Subtracting from Simplified (Values and Variables) (Level 5)'*. Part of a broader unit on *'Radicals - Addition and Subtraction Intro'*

Learn online:

app.mobius.academy/math/units/radicals_addition_and_subtraction_intro/

1 $2m\sqrt{3}+5mn\sqrt{3m}+3mn\sqrt{3mn}$

Add or subtract the radical expressions

a	b	c	d	e	f
					

2 Add or subtract the radical expressions

$$3p\sqrt{3pz}-4p^2\sqrt{3z}+5pz\sqrt{3}$$

a $5p\sqrt{3p^3z^2}-4p^2\sqrt{z^2}+2pz$	b $4p\sqrt{p^2z}-4p\sqrt{z}+4pz\sqrt{3}$
c $3p\sqrt{3pz}-4p^2\sqrt{3z}+5pz\sqrt{3}$	d $3p^2\sqrt{pz}-4p^2\sqrt{4z^2}+6p^3z\sqrt{5}$
e $5p^2\sqrt{3pz}-5p\sqrt{z}+8pz^2$	f $4p\sqrt{3pz}-4p^4\sqrt{z}+4pz$

3 Add or subtract the radical expressions

$$3c\sqrt[3]{5cd}+2c\sqrt[3]{5}-3\sqrt[3]{5c^2d^2}$$

a $c\sqrt[3]{cd^3}+c\sqrt[3]{3}-6\sqrt[3]{3cd^4}$	b $6c\sqrt[3]{5c^3d^3}+2c^2\sqrt[3]{2}-\sqrt[3]{6c^3d}$
c $c\sqrt[3]{6c^2d}+5c\sqrt[3]{2}-\sqrt[3]{2c^3d^4}$	d $5c\sqrt[3]{4cd^2}+3c\sqrt[3]{8}-\sqrt[3]{8c^3d}$
e $2c^2\sqrt[3]{4c^2d}+2c^2\sqrt[3]{4}-5\sqrt[3]{3cd^2}$	f $3c\sqrt[3]{5cd}+2c\sqrt[3]{5}-3\sqrt[3]{5c^2d^2}$

4 Add or subtract the radical expressions

$$4m^2x\sqrt{2}-4x^2\sqrt{2}-2m\sqrt{2x}$$

a $3mx-5x\sqrt{2}-3m\sqrt{x}$	b $5m^4x\sqrt{5}-3x\sqrt{2}-m\sqrt{x}$
c $m^4x\sqrt{5}-x^2\sqrt{3}-m\sqrt{5x}$	d $4m^2x\sqrt{2}-4x^2\sqrt{2}-2m\sqrt{2x}$
e $mx\sqrt{5}-5x^4-m\sqrt{4x}$	

5 Add or subtract the radical expressions

$$4m\sqrt[3]{2my}-3\sqrt[3]{2}+3m\sqrt[3]{2}$$

a $4m\sqrt[3]{2my}-3\sqrt[3]{2}+3m\sqrt[3]{2}$	b $5m^2\sqrt[3]{my}-1+6m\sqrt[3]{4}$
c $m^2\sqrt[3]{2my^2}-\sqrt[3]{4}+4m^3\sqrt[3]{3}$	d $m^2\sqrt[3]{m^2y^3}-\sqrt[3]{2}+m$

6 Add or subtract the radical expressions

$$4\sqrt[3]{3z}+3\sqrt[3]{3zc^2}+3zc\sqrt[3]{3c}$$

a $4\sqrt[3]{3z}+3\sqrt[3]{3zc^2}+3zc\sqrt[3]{3c}$	b $2\sqrt[3]{6z^2}+3\sqrt[3]{6zc^2}+4zc^2\sqrt[3]{3c}$
c $6\sqrt[3]{3z^2}+5\sqrt[3]{6zc}+2zc\sqrt[3]{2c}$	d $5\sqrt[3]{z^2}+\sqrt[3]{6z^2c^4}+2z^2c\sqrt[3]{5c}$
e $6\sqrt[3]{4z}+4\sqrt[3]{3zc}+6zc\sqrt[3]{c}$	f $\sqrt[3]{z^2}+\sqrt[3]{4zc^4}+6z^3c\sqrt[3]{2c}$

7 Add or subtract the radical expressions

$$4d\sqrt[3]{3dr^2}-2\sqrt[3]{3d}-3\sqrt[3]{3dr}$$

a $4d\sqrt[3]{3dr^2}-2\sqrt[3]{3d}-3\sqrt[3]{3dr}$	b $3d^2\sqrt[3]{2dr}-\sqrt[3]{2d^3}-\sqrt[3]{4dr}$
c $3d^2\sqrt[3]{5dr}-3\sqrt[3]{2d}-\sqrt[3]{dr}$	d $5d\sqrt[3]{dr^4}-4\sqrt[3]{4d}-\sqrt[3]{d^2r}$
e $7d\sqrt[3]{2dr^4}-\sqrt[3]{d^3}-6\sqrt[3]{dr}$	f $6d\sqrt[3]{5dr^2}-\sqrt[3]{5d}-\sqrt[3]{5dr}$