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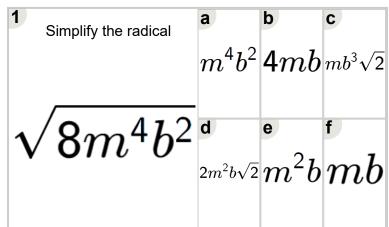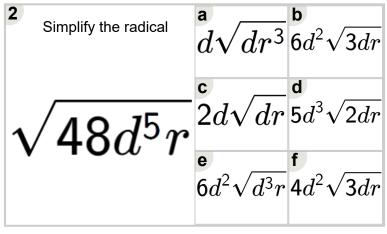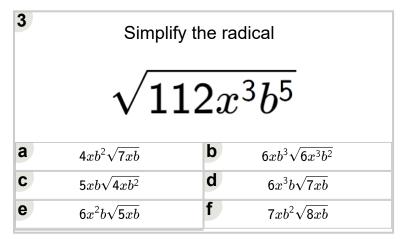
Math worksheet on *'Radicals - Square - Simplifying, Values and Variables, Radical Remaining (Level 3)'*. Part of a broader unit on *'Radicals - Simplifying Advanced'*
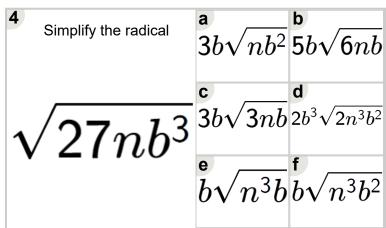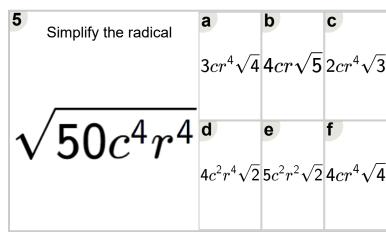
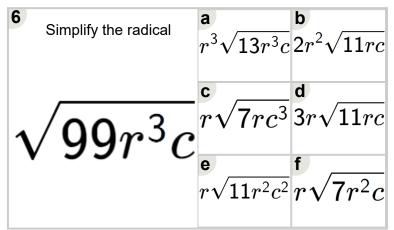Learn online: app.mobius.academy/math/units/radicals_simplifying_advanced/

1 Simplify the radical

$$\sqrt{8m^4b^2}$$

a	b	c
m^4b^2	$4mb$	$mb^3\sqrt{2}$

d	e	f
$2m^2b\sqrt{2}$	m^2b	mb

2 Simplify the radical

$$\sqrt{48d^5r}$$

a	b
$d\sqrt{dr^3}$	$6d^2\sqrt{3dr}$

c	d
$2d\sqrt{dr}$	$5d^3\sqrt{2dr}$

e	f
$6d^2\sqrt{d^3r}$	$4d^2\sqrt{3dr}$

3 Simplify the radical

$$\sqrt{112x^3b^5}$$

a		b
$4xb^2\sqrt{7xb}$		$6xb^3\sqrt{6x^3b^2}$
c		d
$5xb\sqrt{4xb^2}$		$6x^3b\sqrt{7xb}$
e		f
$6x^2b\sqrt{5xb}$		$7xb^2\sqrt{8xb}$

4 Simplify the radical

$$\sqrt{27nb^3}$$

a	b
$3b\sqrt{nb^2}$	$5b\sqrt{6nb}$

c	d
$3b\sqrt{3nb}$	$2b^3\sqrt{2n^3b^2}$

e	f
$b\sqrt{n^3b}$	$b\sqrt{n^3b^2}$

5 Simplify the radical

$$\sqrt{50c^4r^4}$$

a	b	c
$3cr^4\sqrt{4}$	$4cr\sqrt{5}$	$2cr^4\sqrt{3}$

d	e	f
$4c^2r^4\sqrt{2}$	$5c^2r^2\sqrt{2}$	$4cr^4\sqrt{4}$

6 Simplify the radical

$$\sqrt{99r^3c}$$

a	b
$r^3\sqrt{13r^3c}$	$2r^2\sqrt{11rc}$

c	d
$r\sqrt{7rc^3}$	$3r\sqrt{11rc}$

e	f
$r\sqrt{11r^2c^2}$	$r\sqrt{7r^2c}$

7 Simplify the radical

$$\sqrt{27d^5z^3}$$

a	b
$3dz^3\sqrt{d^2z^2}$	$4d^3z^2\sqrt{d^2z^2}$

c	d
$3d^2z\sqrt{3dz}$	$4d^3z\sqrt{d^3z}$

e	f
$3d^3z^2\sqrt{d^2z^3}$	$d^2z\sqrt{3dz^2}$

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