Math worksheet on *'Radicals - Cube - Simplifying from Factors, Values and Variables, Nothing Remaining (Level 3)'*. Part of a broader unit on *'Radicals - Simplifying Advanced'*

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1 Simplify the radical

$\sqrt{3 \cdot 3 \cdot n \cdot n \cdot c \cdot c}$

a	b	c	d	e	f
$2n^2c\sqrt{3}$	$6n^3c$	$nc^2\sqrt{4}$	$5n^3c^3$	$3nc$	$3n^2c\sqrt{4}$

2 Simplify the radical

$\sqrt{2 \cdot 2 \cdot b \cdot b \cdot b \cdot b \cdot d \cdot d \cdot d \cdot d}$

a	b	c	d	e	f
bd^2	$5b^4d$	$2b^2d^2$	$5bd^4$	bd^4	$b^2d^3\sqrt{2}$

3 $\sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot m \cdot m \cdot p \cdot p \cdot p \cdot p}$

Simplify the radical

a	b	c	d	e	f
$4mp^4$	$7mp$	$m^2p\sqrt{2}$	mp^4	$4mp^2$	$4m^3p^2$

4 Simplify the radical

$\sqrt{2 \cdot 2 \cdot p \cdot p \cdot z \cdot z \cdot z \cdot z}$

a	b	c	d	e	f
p^3z	$3p^3z^3$	$2pz$	$2pz^2$	$5p^3z^4$	pz

5 Simplify the radical

$\sqrt{5 \cdot 5 \cdot x \cdot x \cdot x \cdot x \cdot z \cdot z}$

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

6 Simplify the radical

$\sqrt{5 \cdot 5 \cdot z \cdot z \cdot y \cdot y}$

a	b	c	d	e	f
$3z^3y^3$	$7z^2y$	$4zy^2\sqrt{3}$	$2zy\sqrt{2}$	$5zy$	zy^2

7 Simplify the radical

$\sqrt{2 \cdot 2 \cdot p \cdot p \cdot r \cdot r}$

a	b	c	d	e	f
$5p^3r$	$p^2r\sqrt{2}$	$4pr$	pr^3	$2pr$	$pr\sqrt{3}$