Math worksheet on *'Radicals - Square - Simplifying from Factors, Values and Variables, Radical Remaining (Level 1)'*. Part of a broader unit on *'Radicals - Simplifying Intro'*

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1 Simplify the radical

$$\sqrt{3 \cdot 3 \cdot 7 \cdot n \cdot n}$$

a	b	c	d	e	f
$3n\sqrt{4}$	$3n\sqrt{7}$	$n^3\sqrt{4}$	$2n\sqrt{9}$	$2n\sqrt{10}$	$n^2\sqrt{7}$

2 Simplify the radical

$$\sqrt{5 \cdot 5 \cdot 11 \cdot n}$$

a	b	c	d	e	f
$4\sqrt{8n^2}$	$3\sqrt{7n}$	$5\sqrt{11n}$	$3\sqrt{12n}$	$3\sqrt{10n}$	$7\sqrt{7n^2}$

3 Simplify the radical

$$\sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot 7 \cdot y}$$

a	b	c	d	e	f
$3\sqrt{7y}$	$4\sqrt{7y}$	$4\sqrt{3y^2}$	$6\sqrt{6y}$	$2\sqrt{3y}$	$\sqrt{6y}$

4 Simplify the radical

$$\sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot n}$$

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

5 Simplify the radical

$$\sqrt{5 \cdot 5 \cdot 7 \cdot b \cdot b}$$

a	b	c	d	e	f
$5b\sqrt{7}$	$3b^3\sqrt{7}$	$5b\sqrt{10}$	$4b^3\sqrt{8}$	$4b\sqrt{6}$	$8b\sqrt{10}$

6 Simplify the radical

$$\sqrt{2 \cdot 2 \cdot 7 \cdot r \cdot r}$$

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

7 Simplify the radical

$$\sqrt{2 \cdot 2 \cdot 7 \cdot x \cdot x}$$

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