



Math worksheet on 'Radicals - Adding and Subtracting - Simplification (Values and Variables) (Level 3)'. Part of a broader unit on 'Radicals - Addition and Subtraction Intro'

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- 2** Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{125n^2} + \sqrt{45n}$$

a	$5n\sqrt{5} + \sqrt{n^2}$	b	$5n\sqrt{5} + 3\sqrt{4n}$
c	$7n^3\sqrt{3} + 3\sqrt{5n}$	d	$5n\sqrt{5} + \sqrt{7n}$
e	$5n\sqrt{5} + 4\sqrt{6n}$	f	$5n\sqrt{5} + 3\sqrt{5n}$

- 4** Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{12c^3} + \sqrt{75}$$

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

- 6** Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{8c^3} - \sqrt{50c}$$

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

- 1** Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{75} + \sqrt{27c^2}$$

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

- 3** Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{176b^2} + \sqrt{99}$$

a	$3b\sqrt{8} + 6\sqrt{9}$	b	$2b^3\sqrt{9} + 3\sqrt{11}$
c	$4b\sqrt{11} + 3\sqrt{11}$	d	$4b\sqrt{11} + \sqrt{9}$
e	$7b^2\sqrt{7} + 3\sqrt{11}$	f	$b^3\sqrt{14} + 5\sqrt{11}$

- 5** Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{50c^4} + \sqrt{18c^3}$$

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

- 7** Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{48d^3} - \sqrt{27d^4}$$

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