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

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1 Simplify, then add or subtract the radical expressions

$$\sqrt{18m^2} - \sqrt{8m}$$

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

2 Simplify, then add or subtract the radical expressions

$$\sqrt{176y^4} + \sqrt{99y^2}$$

a	$2y^3\sqrt{9} + 6y\sqrt{7}$	b	$6y^4\sqrt{12} + 2y\sqrt{12}$
c	$2y\sqrt{7} + 5y\sqrt{11}$	d	$3y^2\sqrt{10} + 2y\sqrt{11}$
e	$2y^4\sqrt{12} + y\sqrt{9}$	f	$4y^2\sqrt{11} + 3y\sqrt{11}$

3 Simplify, then add or subtract the radical expressions

$$\sqrt{176p^2} + \sqrt{275p^2}$$

a	$9p^3\sqrt{11}$	b	$p\sqrt{11} + 6p\sqrt{14}$
c	$9\sqrt{11}$	d	$p\sqrt{11}$
e	$9p^{-1}\sqrt{11}$	f	$9p\sqrt{11}$

4 Simplify, then add or subtract the radical expressions

$$\sqrt{8} - \sqrt{50b}$$

a	$2\sqrt{2} - 5\sqrt{2b}$	b	$1 - 5\sqrt{b}$
c	$4 - 8\sqrt{5b}$	d	$1 - 3\sqrt{b^2}$
e	$3 - 5\sqrt{4b}$	f	$2\sqrt{4} - \sqrt{5b}$

5 Simplify, then add or subtract the radical expressions

$$\sqrt{8d} + \sqrt{32d^2}$$

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

6 Simplify, then add or subtract the radical expressions

$$\sqrt{20c} + \sqrt{125c^2}$$

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

7 Simplify, then add or subtract the radical expressions

$$\sqrt{80x^3} - \sqrt{125}$$

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