



Math worksheet on 'Radicals - Adding and Subtracting (Values and Variables) (Level 2)'. Part of a broader unit on 'Radicals - Addition and Subtraction Intro'

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2 Simplify, then add or subtract the radical expressions

$$\sqrt{3y} + \sqrt{48y}$$

a	$4\sqrt{3y^3} + 6\sqrt{4y^2}$	b	$8\sqrt{y}$
c	$5\sqrt{3y}$	d	$5\sqrt{3y^3}$
e	$5\sqrt{3y^{-1}}$	f	$5\sqrt{3y^2}$

4 Simplify, then add or subtract the radical expressions

$$\sqrt{3r^4} - \sqrt{27r^3}$$

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

6 Simplify, then add or subtract the radical expressions

$$\sqrt{2n^3} - \sqrt{18n^3}$$

a	$-2n^2\sqrt{2n}$	b	$n\sqrt{5n^2} - 6n^2\sqrt{n^3}$
c	$-2n\sqrt{2n}$	d	$-2n\sqrt{2n^{-1}}$
e	$-2n\sqrt{2n^2}$	f	$2n\sqrt{n^2} - n^3\sqrt{3n^3}$

1 Simplify, then add or subtract the radical expressions

$$\sqrt{12z^4} - \sqrt{3z^2}$$

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

3 Simplify, then add or subtract the radical expressions

$$\sqrt{48b^2} + \sqrt{3b^4}$$

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

5 Simplify, then add or subtract the radical expressions

$$\sqrt{176} + \sqrt{11c^4}$$

a	$7\sqrt{14} + c\sqrt{12}$	b	$4\sqrt{14} + c\sqrt{9}$
c	$\sqrt{11} + c^4\sqrt{13}$	d	$2\sqrt{11} + c\sqrt{12}$
e	$4\sqrt{11} + c^2\sqrt{11}$	f	$2\sqrt{9} + 2c\sqrt{9}$

7 Simplify, then add or subtract the radical expressions

$$\sqrt{275m^3} + \sqrt{11m^4}$$

a	$6m^3\sqrt{10m} + m\sqrt{11}$	b	$8m\sqrt{9m} + 3m^2\sqrt{12}$
c	$6m^3\sqrt{11m} + m^3\sqrt{9}$	d	$6m^2\sqrt{14m} + m^3\sqrt{12}$
e	$5m\sqrt{11m} + m^2\sqrt{11}$	f	$5m^2\sqrt{7m^3} + 4m^2\sqrt{12}$