Math worksheet on *'Radicals - Adding and Subtracting - Simplification (Values Only) (Level 5)'*. Part of a broader unit on *'Radicals - Addition and Subtraction Intro'*

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1 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{112} - \sqrt{63} + \sqrt{112}$$

a	$7\sqrt{6} - 3\sqrt{7} + \sqrt{9}$	b	$4\sqrt{7} - 3\sqrt{7} + 4\sqrt{10}$
c	$4\sqrt{3} - \sqrt{8} + 4\sqrt{7}$	d	$4\sqrt{7} - \sqrt{9} + 5\sqrt{6}$
e	$4\sqrt{7} - 3\sqrt{4} + 4\sqrt{7}$	f	$4\sqrt{7} - 3\sqrt{7} + 4\sqrt{7}$

2 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{99} - \sqrt{176} + \sqrt{44}$$

a	$3\sqrt{11} - \sqrt{12} + \sqrt{14}$	b	$2\sqrt{9} - 4\sqrt{11} + 2\sqrt{11}$
c	$\sqrt{9} - 4\sqrt{11} + \sqrt{10}$	d	$3\sqrt{11} - 4\sqrt{11} + \sqrt{13}$
e	$5\sqrt{8} - 3\sqrt{7} + 2\sqrt{11}$	f	$3\sqrt{11} - 4\sqrt{11} + 2\sqrt{11}$

3 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{125} + \sqrt{45} + \sqrt{45}$$

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

4 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{176} - \sqrt{275} - \sqrt{176}$$

a	$6\sqrt{7} - 5\sqrt{11} - 4\sqrt{11}$	b	$2\sqrt{13} - 2\sqrt{11} - 4\sqrt{11}$
c	$7\sqrt{12} - 5\sqrt{11} - 4\sqrt{11}$	d	$4\sqrt{11} - 5\sqrt{11} - 4\sqrt{11}$
e	$\sqrt{9} - 5\sqrt{11} - \sqrt{10}$	f	$4\sqrt{11} - 5\sqrt{11} - 5\sqrt{11}$

5 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{44} + \sqrt{176} - \sqrt{99}$$

a	$2\sqrt{11} + 2\sqrt{13} - 6\sqrt{7}$	b	$2\sqrt{11} + 4\sqrt{11} - \sqrt{13}$
c	$2\sqrt{11} + 4\sqrt{11} - 4\sqrt{8}$	d	$2\sqrt{11} + 4\sqrt{8} - 3\sqrt{11}$
e	$2\sqrt{11} + 4\sqrt{11} - 3\sqrt{11}$	f	$\sqrt{9} + 4\sqrt{11} - 2\sqrt{9}$

6 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{28} - \sqrt{112} + \sqrt{112}$$

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

7 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{112} + \sqrt{112} - \sqrt{63}$$

a	$\sqrt{5} + 4\sqrt{7} - 3\sqrt{7}$	b	$4\sqrt{7} + 4\sqrt{7} - 3\sqrt{7}$
c	$2\sqrt{4} + 4\sqrt{7} - 3\sqrt{7}$	d	$4\sqrt{7} + \sqrt{5} - \sqrt{3}$
e	$3\sqrt{9} + 4\sqrt{7} - \sqrt{4}$	f	$4\sqrt{7} + \sqrt{7} - 3\sqrt{7}$