

BE-1B

TUESDAY 1-16-07

AHSGE Workbook

Page

Problem #

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①

How do you simplify

$$2\sqrt{3} + 6\sqrt{3} - \sqrt{3}$$

$$8\sqrt{3} - \sqrt{3}$$

$$\boxed{7\sqrt{3}}$$

How about

$$5\sqrt{2} - 2\sqrt{3} + 6\sqrt{2} - 8\sqrt{3}$$

$$\boxed{11\sqrt{2} - 10\sqrt{3}}$$

$$\text{EX) } 4\sqrt{3} + 6\sqrt{3} - 5\sqrt{3}$$

$$\text{EX) } 12\sqrt{5} + 3\sqrt{7} + 6\sqrt{7} - 8\sqrt{5}$$

↑
EX 1 Pg 593 Ch. 11-2 OPERATIONS
WITH RADICAL
EXPRESSIONS

BE ALERT: (try this)

②

$$2\sqrt{20} + 3\sqrt{45} + \sqrt{180}$$

$$2\sqrt{4}\sqrt{5} + 3\sqrt{5}\sqrt{9} + \sqrt{9}\sqrt{20}$$

$$2 \cdot 2\sqrt{5} + 3 \cdot 3\sqrt{5} + 3\sqrt{4}\sqrt{5}$$

$$4\sqrt{5} + 9\sqrt{5} + 6\sqrt{5}$$

$$= \boxed{19\sqrt{5}} \Leftarrow \text{EX 2 Pg 594}$$

$$*) 3\sqrt{5} + 5\sqrt{6} + 3\sqrt{20}$$

$$3\sqrt{5} + 5\sqrt{6} + 3\sqrt{4}\sqrt{5}$$

$$3\sqrt{5} + 5\sqrt{6} + 6\sqrt{5}$$



$$\boxed{9\sqrt{5} + 5\sqrt{6}}$$

WHAT ABOUT MULTIPLYING RADICALS? ③

EX) $\sqrt{2}(\sqrt{8} + 4\sqrt{3})$

$\sqrt{2}(\sqrt{8} + 4\sqrt{3})$

$\sqrt{16} + 4\sqrt{6}$

$\boxed{4 + 4\sqrt{6}}$

EX) $(4\sqrt{5} - 2\sqrt{3})(3\sqrt{6} - \sqrt{10})$

$(4\sqrt{5} - 2\sqrt{3})(3\sqrt{6} - \sqrt{10})$

$12\sqrt{30} - 4\sqrt{50} - 6\sqrt{18} + 2\sqrt{30}$
 $- 4\sqrt{25}\sqrt{2} - 6\sqrt{9}\sqrt{2}$

$14\sqrt{30} - 20\sqrt{2} - 18\sqrt{2}$

$\boxed{14\sqrt{30} - 38\sqrt{2}}$ EX 3 Pg 594

HW: Pg 595 # 14 to 17, # 30 to 33