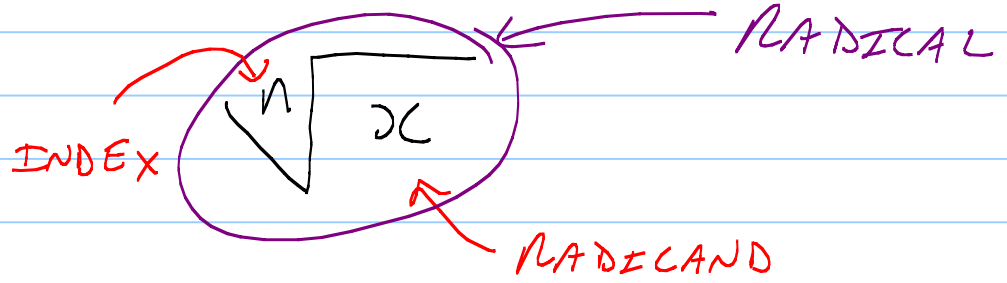
ADDING / SUBTRACTING RADICALS

Note Title 2/21/2012

REVIEW



RECALL: $\sqrt{a} \times \sqrt{b} = \sqrt{a \times b}$

DOES $\sqrt{a} + \sqrt{b} = \sqrt{a+b}$?

IE $\sqrt{4} + \sqrt{16} = \sqrt{4+16}$

$2 + 4 = \sqrt{20}$

$6 = \sqrt{20}$ DOESN'T WORK!!

- WHEN WE ADD/SUBTRACT RADICALS THE RADICAND (THE STUFF UNDER THE ROOT SIGN) MUST BE THE SAME.

IE $3\sqrt{2} + 5\sqrt{2} = 8\sqrt{2}$

* WE CAN ONLY COMBINE LIKE RADICANDS *

IE $3\sqrt{5} + 2\sqrt{3} - 4\sqrt{5} + 6\sqrt{3} = -\sqrt{5} + 8\sqrt{3}$

- SOMETIMES WE NEED TO SIMPLIFY RADICALS BEFORE ADDING/SUBTRACTING.

IE $3\sqrt{20} - 4\sqrt{125}$

$3\sqrt{4}\sqrt{5} - 4\sqrt{25}\sqrt{5}$

$6\sqrt{5} - 20\sqrt{5} = -14\sqrt{5}$

H/W pg 103 # 1-3, 5-7, 9-11

A, C, E... ALL