

5.2b Operations with Radicals

* a denominator means (the irrational part) from the denominator.

Case 1: The denominator is of the form $a\sqrt{b}$. Only the \sqrt{b} part needs "fixing".

ex. a)

b)

c)

Case 2: The denominator is a binomial with radicals.

ex. $\frac{3}{5 - \sqrt{2}}$

Definition: two binomial factors are called conjugates if their product is the difference of two squares... $(a + b)$ and $(a - b)$ are conjugates

recall: $(a + b)(a - b) =$

* To simplify case 2 expressions. we must multiply both numerator and denominator by the conjugate of the denominator

ex. $\frac{3}{5 - \sqrt{2}}$

ex. a)

b)