

5.3 Equations containing radicals

* Restrictions on a variable exist when:

- > The denominator _____
- > The radicand is _____ for even indices

ex. State the restrictions for:

a)

b)

* When solving equations containing radicals, the key is to _____ the radical on one side of the equation, then _____ to eliminate the radical.

NOTE: When squaring both sides, we lose accuracy. Therefore, we must always verify our answers in the _____ equation.

ex. $5 + \sqrt{2x + 1} = 12$

solution:

restrictions:

verification:

ex. Solve $n - \sqrt{5 - n} = -7$

solution:

restrictions:

verification:

ex. Solve $7 - \sqrt{3x} = \sqrt{5x} + 4 + 5$

solution:

restrictions:

verification:

Recall: