Section 7.5: Solving Radical Equations

Objective:

�   Solve a radical equation.

$$\sqrt{2x-1} - \sqrt{3x} = 2$$

TRUE or FALSE?

If $u = v$, then $u^n = v^n$.

① EXAMPLE
Solve for the variable.

$a)$ $\sqrt{x} - 5 = 0$

$b)$ $\sqrt{x^2 + 5} - 3 = 0$

$c)$ $\sqrt{3y + 1} - \sqrt{y + 15} = 0$

$d)$ $2\sqrt[3]{10 - 3x} = \sqrt[3]{2 - x}$

② EXAMPLE

Solve for the variable.

a) $\sqrt{x+3} - \sqrt{x-1} = 1$

b) $\sqrt{x} + \sqrt{x+2} = 2$

③ EXAMPLE

Solve for the variable.

a) $(x+4)^{5/3} = 32$

b) $\sqrt{x} = x - 6$