

Solving Radical Equations # 4

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

$$\sqrt{5x+6} - 1 = \sqrt{3x+3}$$

$$\underline{(5x+6)} - \underline{2}\sqrt{5x+6} + \underline{1} = \underline{3x+3}$$

$$\sqrt{5x+6} = x+2$$

$$5x+6 = x^2+4x+4$$

$$x^2-x-2=0$$

$$(x-2)(x+1)=0$$

$$\textcircled{2} \text{ or } \textcircled{-1}$$

$$\sqrt{5 \cdot 2 + 6} + 3 = \sqrt{3 \cdot 2 + 3} + 4$$

$$\sqrt{16} + 3 = \sqrt{9} + 4$$

$$4 + 3 = 3 + 4$$

yes

$$\sqrt{5(-1)+6} + 3 = \sqrt{3(-1)+3} + 4$$

$$\sqrt{1} + 3 = \sqrt{0} + 4$$

$$1 + 3 = 4$$

yes