January 23, 2017

* Quiz #2 - Wednesday
* Completing the Square

① $ax^2+bx+c=0$ where $a=1$

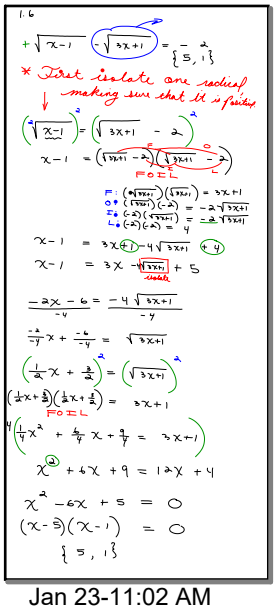
② $ax^2+bx+c=0$ where $a\neq 1$

$a=5$

$$\frac{5x^2}{5}-\frac{2x}{5}+\frac{15}{5}=\frac{0}{5}$$

$$x^2-\frac{2}{5}x+3=0$$

Jan 23-10:55 AM



Jan 23-11:02 AM

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

$x=5$

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

$\sqrt{4}-\sqrt{16}=-2$

$2-4=-2$

$-2=-2$ ✓

$x=1$

$\sqrt{1-1}-\sqrt{3(1)+1}=-2$

$\sqrt{0}-\sqrt{4}=-2$

$0-2=-2$

$-2=-2$ ✓

Jan 23-11:35 AM

Complete the Square

$x^2-x+1=0$

$x^2-x+\frac{1}{4}=-\frac{1}{1}+\frac{1}{4}$

$\left(x-\frac{1}{2}\right)^2=\frac{-4+1}{4}=-\frac{3}{4}$

$\sqrt{\left(x-\frac{1}{2}\right)^2}=\sqrt{-\frac{3}{4}}$

$x-\frac{1}{2}=\pm\frac{i\sqrt{3}}{2}$

$$x=\frac{1}{2}\pm\frac{i\sqrt{3}}{2}$$

$$x=\frac{1\pm i\sqrt{3}}{2}$$

Jan 23-11:38 AM