

April 15, 2015

- * Quiz #9 - Friday
- * Exam #3 - Wednesday
- * Last Day of Class - Friday, April 24
- * Final - Friday, May 1

Apr 15-9:55 AM

11.1
#14) $x^2 + x$

a.) $1 \cdot \frac{1}{2} = \frac{1}{2}$
 b.) $(\frac{1}{2})^2 = \frac{1}{4}$ *add to both sides*

$$\boxed{x^2 + x + \frac{1}{4}}$$

P.S.S

$$\left(x + \frac{1}{2}\right)^2$$

Apr 15-10:04 AM

11.1
#18) $4x^2 = 9x$

$$\frac{4x^2}{4} - \frac{9x}{4} = \frac{0}{4}$$

$$x^2 - \frac{9}{4}x = 0$$

a.) $-\frac{9}{4} \cdot \frac{1}{2} = -\frac{9}{8}$
 b.) $(-\frac{9}{8})^2 = \frac{81}{64}$ *add to both sides*

$$\boxed{x^2 - \frac{9}{4}x + \frac{81}{64} = \frac{81}{64}}$$

$$\sqrt{\left(x - \frac{9}{8}\right)^2} = \pm \sqrt{\frac{81}{64}}$$

$$x - \frac{9}{8} = \pm \frac{9}{8}$$

$+ \frac{9}{8}$ $+ \frac{9}{8}$

$$x = \frac{9}{8} \pm \frac{9}{8}$$

① $x = \frac{9}{8} + \frac{9}{8} = \frac{18}{8} = \frac{9}{4}$
 ② $x = \frac{9}{8} - \frac{9}{8} = \frac{0}{8} = 0$

Apr 15-10:07 AM

Ch

① $x = \frac{9}{4}$ $4x^2 = 9x$

$$4\left(\frac{9}{4}\right)^2 = 9\left(\frac{9}{4}\right)$$

$$4\left(\frac{81}{16}\right) = \frac{81}{4}$$

$$\frac{81}{4} = \frac{81}{4} \checkmark$$

$\frac{4}{16}$

② $x = 0$

$$4(0)^2 = 9(0)$$

$$4(0) = 0$$

$$0 = 0 \checkmark$$

Apr 15-10:13 AM

#17) $\frac{2x^2 - 2x}{2} = \frac{3}{2}$

$$x^2 - x = \frac{3}{2}$$

a.) $-1 \cdot \frac{1}{2} = -\frac{1}{2}$
 b.) $(-\frac{1}{2})^2 = \frac{1}{4}$

$$\boxed{x^2 - x + \frac{1}{4} = \frac{3}{2} + \frac{1}{4} = \frac{6+1}{4}}$$

$$\sqrt{\left(x - \frac{1}{2}\right)^2} = \pm \sqrt{\frac{7}{4}}$$

$$x - \frac{1}{2} = \pm \frac{\sqrt{7}}{2}$$

$$x = \frac{1}{2} \pm \frac{\sqrt{7}}{2} = \frac{1 \pm \sqrt{7}}{2}$$

Apr 15-10:17 AM

$$x = \frac{1 + \sqrt{7}}{2}; 2x^2 - 2x = 3$$

$$2\left(\frac{1 + \sqrt{7}}{2}\right)^2 - 2\left(\frac{1 + \sqrt{7}}{2}\right) = 3$$

$$2\left(\frac{(1 + \sqrt{7})^2}{4}\right) - \frac{2(1 + \sqrt{7})}{2} = 3$$

$$2\left(\frac{1 + 2\sqrt{7} + 7}{4}\right) - \frac{2}{2} - \frac{2\sqrt{7}}{2} = 3$$

$$\cancel{2} \left(\frac{8 + 2\sqrt{7}}{4}\right) - \frac{2}{2} - \frac{2\sqrt{7}}{2} = 3$$

$$\frac{8 + 2\sqrt{7} - 2 - 2\sqrt{7}}{2} = 3$$

$$\frac{8 - 2}{2} = 3$$

$$\frac{6}{2} = 3$$

$$3 = 3 \checkmark$$

Apr 15-10:22 AM

Friday's Assignment

① Completing the Square

$a \neq 1$

$$\frac{ax^2}{a} + \frac{bx}{a} + \frac{c}{a} = \frac{0}{a}$$

② Check the result from

① $x = ?$

$$-3x^2 - 5x + 10 = 0$$

Apr 15-10:29 AM

Apr 15-10:34 AM