August 31, 2016

Math Jam Fridays start this week 320 E M:00

$5y^2 = 60 - 20y$

$\frac{5y^2}{5} + \frac{20y}{5} = \frac{60}{5}$

$y^2 + 4y = 12$

$4 \cdot y_2 = 4$

$2^2 = 4$

$y^2 + 4y + 4 = 12 + 4$

$\sqrt{(y+2)^2} = \pm\sqrt{16}$

$y + 2 = \pm 4$

$y = -2 \pm 4$

$y = 2$

$y = -6$

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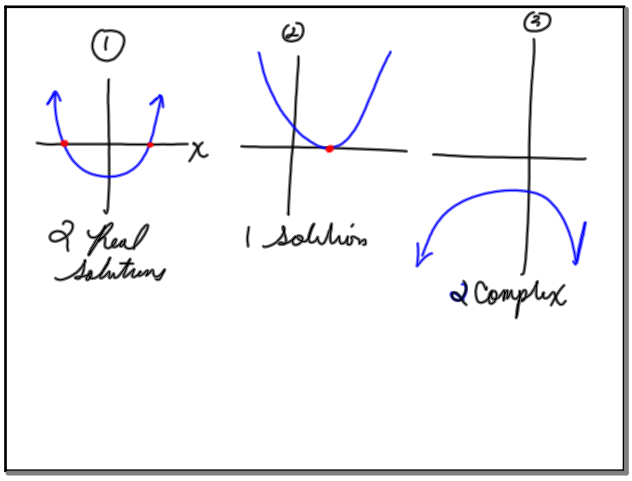


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$ax^2 + bx + c = 0$

$\frac{a}{a}x^2 + \frac{b}{a}x + \frac{c}{a} = \frac{0}{a}$

$x^2 + \frac{b}{a}x + \frac{c}{a} = 0$

$x^2 + \frac{b}{a}x = -\frac{c}{a}$

$\frac{b}{a} \cdot \frac{1}{2} = \frac{b}{2a}$

$\left(\frac{b}{2a}\right)^2 = \frac{b}{2a} \cdot \frac{b}{2a} = \frac{b^2}{4a^2}$

P.S.T. $x^2 + \frac{b}{a}x + \frac{b^2}{4a^2} = \frac{b^2}{4a^2} - \frac{c}{a}$

$\sqrt{\left(x + \frac{b}{2a}\right)^2} = \pm\sqrt{\frac{b^2 - 4ac}{4a^2}}$

$x + \frac{b}{2a} = \pm\frac{\sqrt{b^2-4ac}}{\sqrt{4a^2}}$

$x + \frac{b}{2a} = \pm\frac{\sqrt{b^2-4ac}}{2a}$

$x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

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S.F. $(x-h)^2 + (y-k)^2 = r^2$

Center: $(h, k)$

Radius: $r$

$\sqrt{r^2} = r$

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#1) $8x + x^2 - 2y = 64 - y^2$

$x^2 + 8x + y^2 - 2y = 64$

$8 \cdot y_2 = 4$ $\quad -2 \cdot y_2 = -1$

$4^2 = 16$ $\quad (-1)^2 = 1$

$x^2 + 8x + 16 + y^2 - 2y + 1 = 64 + 16 + 1$

$(x+4)^2 + (y-1)^2 = 81$

Center: $(-4, 1)$

Radius: 9

$(x-(-4))^2 + (y-1)^2$

$(x+4)^2$

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Do #2 — #6

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