DENTIFYING CONICS 1) $\chi = 5 - 3(y+2)^2$ DO NOT WRITE THESE **RULES ON YOUR CARD!** Parabola - I squared variable Hyperbola - 2 squared vars With opposite signs 5) 3x2+7x-4y+2y2=11 Ellipse- 2 squand vars, 6) 2x2-Sy=3x+14-3x2 Same signs, different weff (6) $2x^2 - 5y = 3x + 14 - 3x^2$ 7) 9x2-2x+1=3y2+2y Circle-2 squared vars, Same signs, Same coeff.

Solving Systems of Quadratic Equations

$$H 5x^2 - 3y^2 = -28$$

 $E = 32x^2 + y^2 = 24$

Elimination--Variables must have the same exponents.

$$+ \frac{5x^{2} - 3y^{2} = -28}{6x^{2} + 3y^{2} = 72}$$

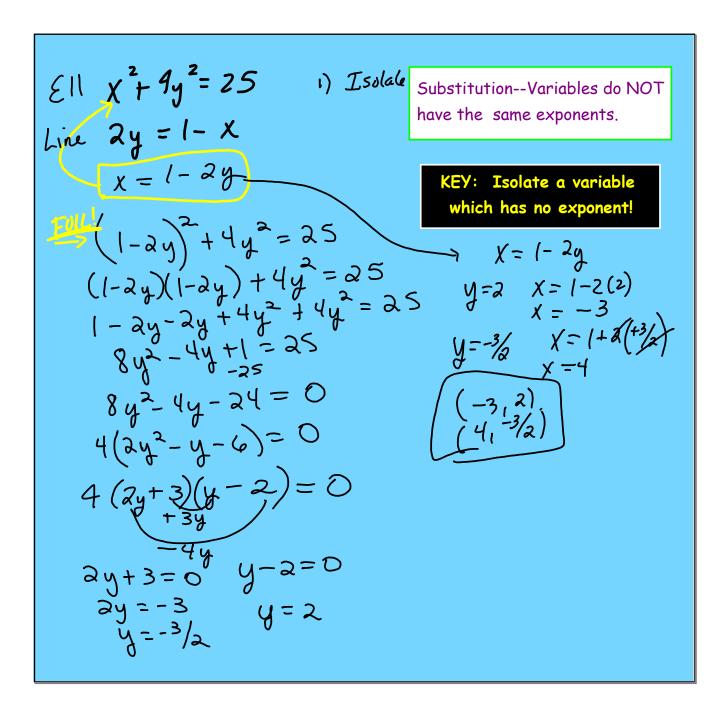
$$+ \frac{11x^{2}}{11} = \frac{44}{11}$$

$$= \frac{44}{11}$$

$$= \frac{4}{11}$$

$$= \frac{4}{11}$$

$$= \frac{4}{11}$$



No solution

Variables will cancel $\sqrt{\chi^2 = \sqrt{-7}}$ $\sqrt{\chi^2 + 4} = \chi^2 - 8$ imaginary = no sol. 4 = -8

Infinitely Many

Variables cance

