5.5 Day 2 HW # 21

$3x^2 + 2y^2 = 5$

$x - y = -2$

$+y \qquad +y$

$x = y - 2$

Need $x^2 = (y-2)^2$

$= (y-2)(y-2)$

$= y^2 - 2y - 2y + 4$

$x^2 = y^2 - 4y + 4$

$3(y^2 - 4y + 4) + 2y^2 = 5$

$3y^2 - 12y + 12 + 2y^2 = 5$

$5y^2 - 12y + 12 = 5$

$-5 \qquad -5$

$5y^2 - 12y + 7 = 0$

35	-12
-5(-7)	-5 - 7 = -12

$\frac{5y^2}{5y} - \frac{5y}{5y} - \frac{7y}{-7} + \frac{7}{-7} = 0$

$5y(y-1) - 7(y-1) = 0$

5.5 Day 2

$$(5y-7)(y-1)=0$$

$5y-7=0$ $\quad$ $y-1=0$

$+7\ +7$ $\quad$ $+1\ +1$

$\frac{5y}{5}=\frac{7}{5}$ $\quad$ $y=1$

$y=\frac{7}{5}$

$\left[y=\frac{7}{5}\right]$ $x-y=-2$

$x-\frac{7}{5}=-2$

$+\frac{7}{5}\quad +\frac{7}{5}$

$x=-2+\frac{7}{5}$

$=-\frac{10}{5}+\frac{7}{5}$

$x=-\frac{3}{5}$

$\left(-\frac{3}{5}, \frac{7}{5}\right)$

$[y=1]$ $x-y=-2$

$x-1=-2$

$+1\quad +1$

$x=-1$

$(-1, 1)$