Solve using substitution.

$2x + 4y = 0$

$3x + y = 5$

$-3x \quad -3x$

$y = -3x + 5$

$y = -3(2) + 5$

$= -6 + 5$

$y = -1$

$(2, -1)$

$2x + 4(-3x + 5) = 0$

$2x - 12x + 20 = 0$

$-10x + 20 = 0$

$-20 \quad -20$

$\frac{-10x}{-10} = \frac{-20}{-10}$

$x = 2$

Solve using elimination.

$5x + 7y = 4$

$5(-x - 2y = -2)$

$5x + 7y = 4$

$-5x - 10y = -10$

$\frac{-3y}{-3} = \frac{-6}{-3}$

$y = 2$

$5x + 7(2) = 4$

$5x + 14 = 4$

$-14 \quad -14$

$\frac{5x}{5} = \frac{-10}{5}$

$x = -2$

$(-2, 2)$

$y = 3x + 4$

$3x - y = 7$

$0 = 7$ no solution

inconsistent

$3x - (3x + 4) = 7$

$3x - 3x - 4 = 7$

$-4 = 7$

False

(3, 5)

1 solution

consistent & independent

$7 = 7$

infinitely many

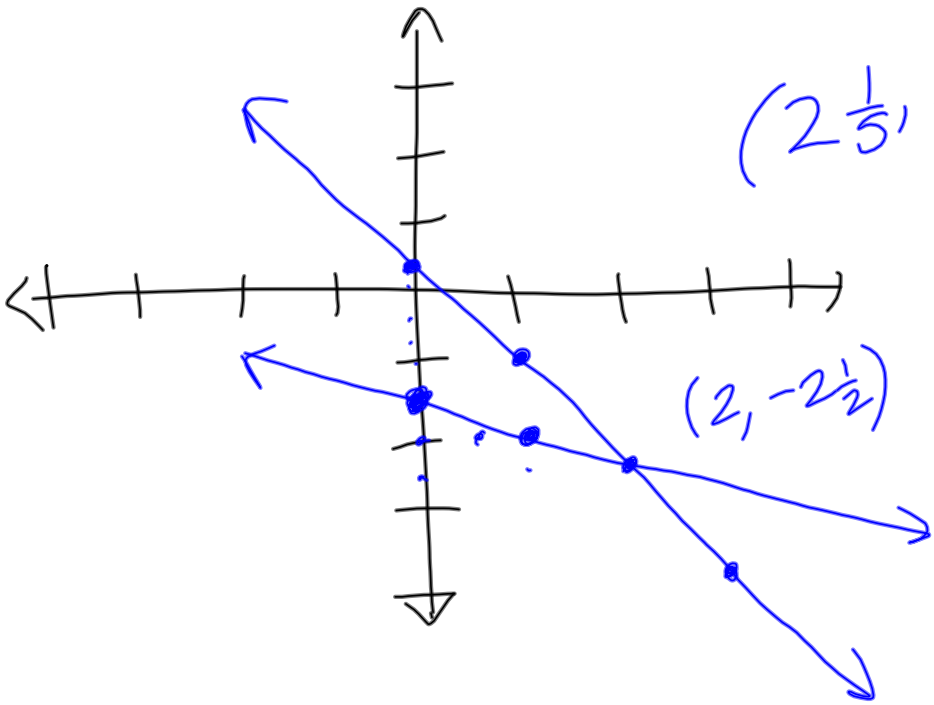
consistent & dependent

5. $8x + 6y = 2$ $\quad$ $x + 2y = -3$

$-8x \quad -8x$ $\quad$ $-x \quad -x$

$\frac{6y}{6} = \frac{-8x}{6} + \frac{2}{6}$ $\quad$ $\frac{2y}{2} = \frac{-1x}{2} - \frac{3}{2}$

$y = -\frac{4}{3}x + \frac{1}{3}$ $\quad$ $y = -\frac{1}{2}x - \frac{3}{2}$



$(2\frac{1}{5}, -2\frac{3}{5})$

$(2, -2\frac{1}{2})$

Feb 18-11:50 AM

$$0.7m + 3n = 2.5$$
$$-0.7m + 2n = 3.0$$

$$n = -0.5$$

$$0.7m + 3(-0.5) = 2.5$$
$$0.7m - 1.5 = 2.5$$
$$+1.5 \quad +1.5$$

$$\frac{0.7m}{0.7} = \frac{4.0}{0.7} = \frac{40}{7}$$