Dom $f(x) = [-1, 4]$

Range $f(x) = (3, 12)$

$$g(x) = -2f(3x+4) - 5$$

Dom

$$-4 \leq 3x+4 \leq 4$$

$$-4 \quad -4 \quad -4$$

$$-5 \leq 3x \leq 0$$

$$\frac{-5}{3} \leq \frac{3x}{3} \leq \frac{0}{3}$$

$$-\frac{5}{3} \leq x \leq 0$$

Range

$$3 < -2x - 5 < 12$$

$$-2 \quad -2 \quad -2$$

$$-6 > x - 5 > -24$$

$$-5 \quad -5 \quad -5$$

$$-11 \geq x > -29$$

Dom $g(x) = [-\frac{5}{3}, 0]$

Range $g(x) = (-29, -11)$

2.

$3x + 7y = 2$

$-3x \quad -3x$

$\frac{7y}{7} = \frac{-3x}{7} + \frac{2}{7}$

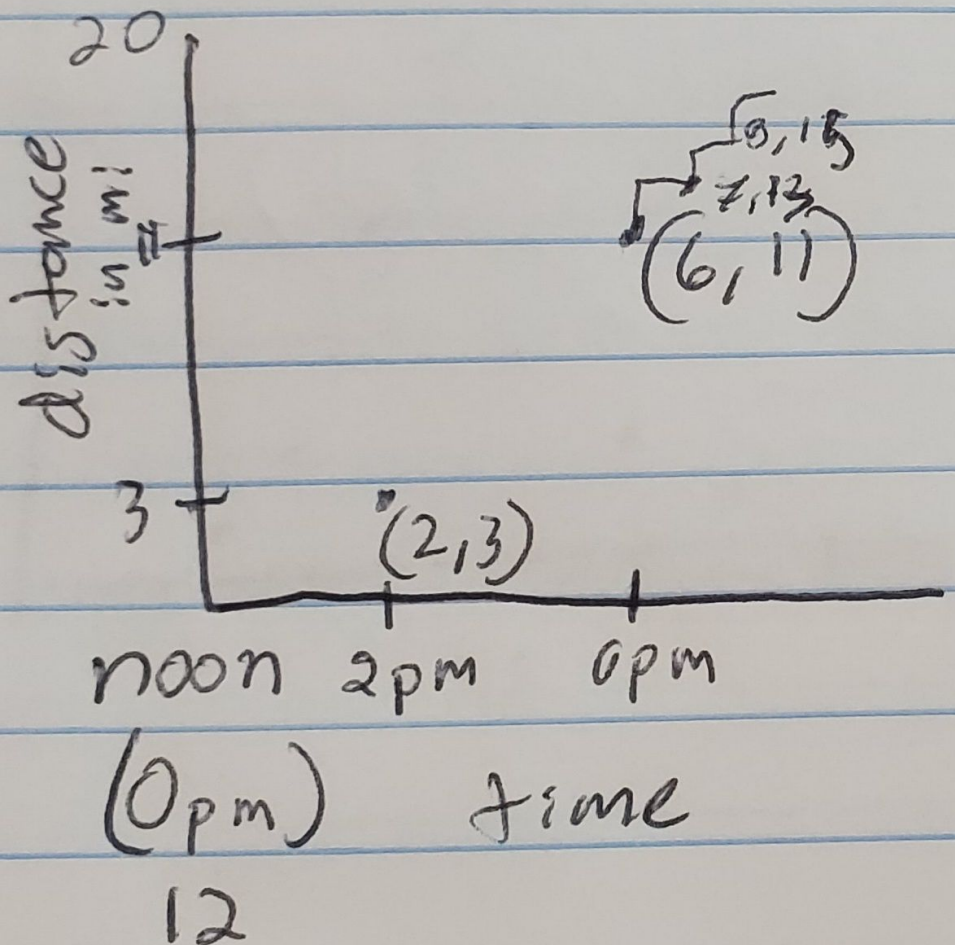
$y = \frac{-3}{7}x + \frac{2}{7}$

negative reciprocal $= 7/3x$

$y - 8 = \frac{7}{3}(x - 1) \rightarrow y = \frac{7}{3}x - \frac{7}{3} + 8$

$y = 7/3x + \frac{24}{3} - \frac{7}{3} \rightarrow \boxed{y = 7/3x + 17/3}$

$$m = \frac{11-3}{6-2} \rightarrow \frac{8}{4} \qquad m = 2$$




At 9pm I will have walked 17 miles