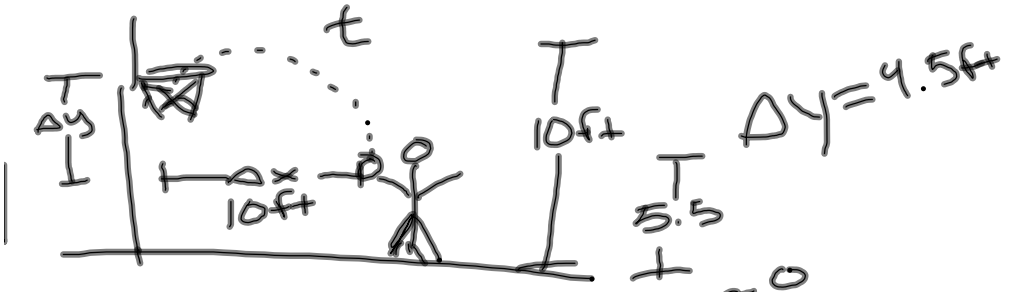


$$\Delta x = v_0 t + \cancel{\tfrac{1}{2} a t^2}^{\,0}$$

$$10m = v_0 \cdot 1s$$

$$v_{0x} = 10\ ft/s$$

$$\Delta y = v_0 t + \tfrac{1}{2} a t^2$$

$$5.5ft = v_0 \cdot 1s + \tfrac{1}{2}(-32 ft/sec^2)(1s)^2$$

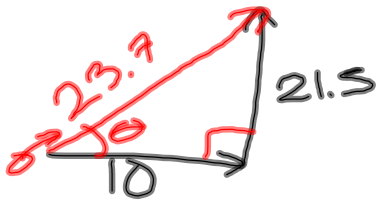
$$5.5ft = v_0 \cdot 1s - 16ft$$

$$+16ft \qquad +16ft$$

$$21.5ft = v_0 \cdot 1s$$

$$v_0 = 21.5 \frac{ft}{sec}$$

$$10.\frac{ft}{s}\hat{x},\ 21.5\frac{ft}{sec}\hat{y}$$



$$V = \sqrt{21.5^2 + 10^2}$$

$$V^2 = a^2 + b^2$$

$$V = \sqrt{a^2 + b^2}$$

$$V = 23.7 \frac{ft}{sec}$$

soh cah toa

$\sin\theta = \frac{opp}{hyp}$ $\quad \sin\theta = \frac{21.5}{23.7}$

$$\sin\theta = 0.90717$$

$$\sin^{-1}(\sin\theta) = \sin^{-1}(0.90717)$$

$$\theta = 65.12^\circ$$

arcsin

$\sin^{-1}(\sin\theta) = \theta$

24. $4 + |3k-1| \leq 11$

$-4 \quad -4$

$|3k-1| \leq 7$

$3k-1 \leq 7$ $\quad$ $3k-1 \geq -7$

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

$3k \leq 8$ $\quad$ $3k \geq -6$

$\frac{3k}{3} \leq \frac{8}{3}$ $\quad$ $\frac{3k}{3} \geq \frac{-6}{3}$

$k \leq 8/3$ $\quad$ $k \geq -2$

28. $(\frac{1}{2}, -2)$ $(0, -4)$

find the slope

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-4 + +2}{0 - \frac{1}{2}} = \frac{-2}{-.5} = 4$$

30. $x - 3y = 2$

$-x \quad\quad -x$

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

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

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

$y = mx + b$ (slope)

$m = \frac{1}{3}$

33. $(-2, -5)$ $m = \frac{3}{4}$

x y

Find the EQ.

we need y-int (b) & m

$y = mx + b$

$-5 = \frac{3}{4}(-2) + b$

$-5 = -\frac{3}{2} + b$

$+3/2$

$b = -3.5 = -\frac{7}{2}$

$$y = \frac{3}{4}x - \frac{7}{2}$$

36. $g(s) = 3s^2 - 4s + 3$

$g(-1) = 3(-1)^2 - 4(-1) + 3$

$g(-1) = 3 \cdot -1 + 4 + 3$

$= -3 + 7 = 4$