

\*

graph  $4x - y < 5$

No =

Dotted line for border

$x = 2$

$$\begin{aligned} 4(2) - y &< 5 \\ 8 - y &< 5 \\ \underline{-8} \quad \underline{-8} \\ (-1)(-y) &< -3(-1) \\ y &> 3 \\ \uparrow \\ \text{No} = \end{aligned}$$

- (2, 3.1)
- (2, 3.5)
- (2, 4)
- (2, 5)

$x = 1$

$$\begin{aligned} 4(1) - y &< 5 \\ 4 - y &< 5 \\ \underline{-4} \quad \underline{-4} \\ (-1)(y) &< (1)(-1) \\ y &> -1 \end{aligned}$$

- (1, -0.5)
- (1, 0)
- (1, 1)
- (1, 2)

$x = -1$

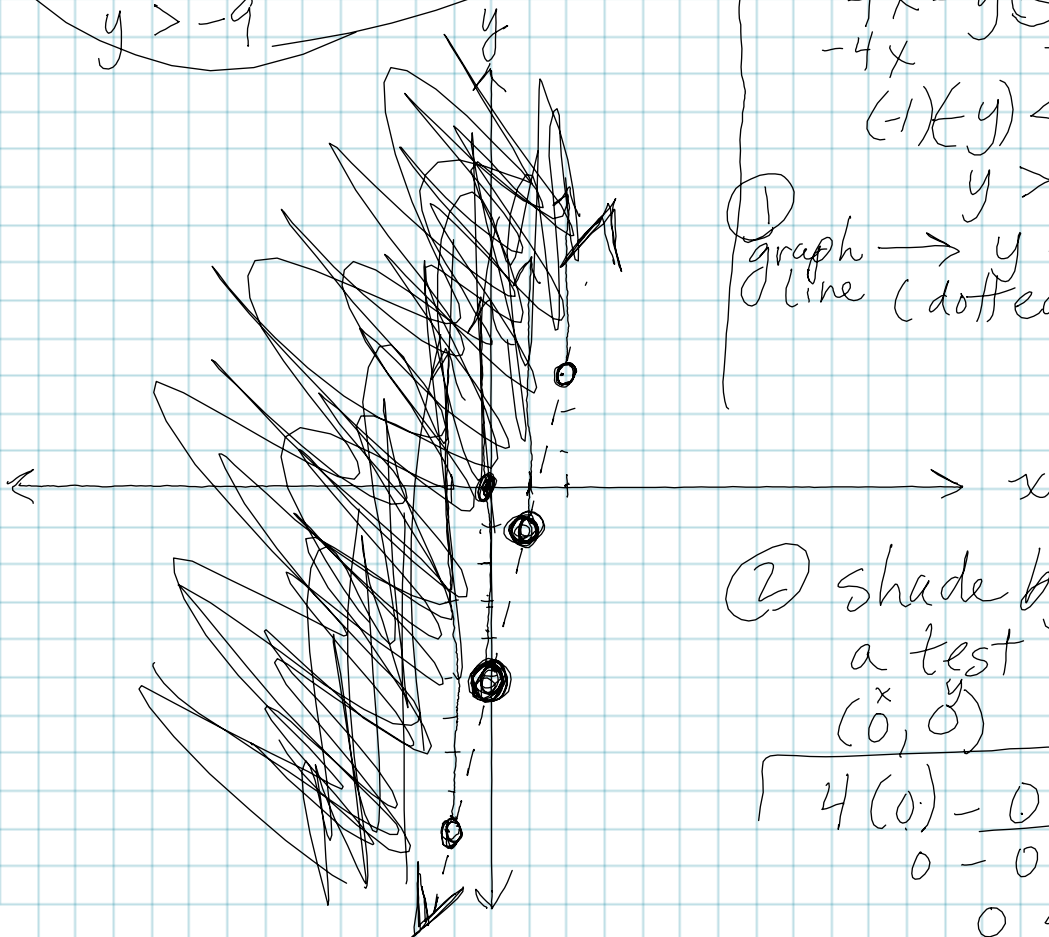
$$\begin{aligned} 4(-1) - y &< 5 \\ -4 - y &< 5 \\ \underline{+4} \quad \underline{+4} \\ (-1)(-y) &< (9)(-1) \\ y &> -9 \end{aligned}$$

$x = 0$

$$\begin{aligned} 4(0) - y &< 5 \\ (-1)(-y) &< 5(-1) \\ y &> -5 \end{aligned}$$

$$\begin{aligned} 4x - y &< 5 \\ -4x \quad -4x \\ (-1)(-y) &< (-4x + 5)(-1) \\ y &> 4x - 5 \end{aligned}$$

graph  $\rightarrow y = 4x - 5$   
line (dotted)  $\uparrow$   
 $\frac{4}{1}$  slope



(2) shade by picking a test point  $(0, 0)$

$$\begin{aligned} 4(0) - 0 &< 5 \\ 0 - 0 \\ 0 &< 5? \text{ yes} \end{aligned}$$