

# Review

Mathematician Mrs. Talley

Yasmine has two jobs- Target pays \$8 per hour and Jets Pizza Palace pays \$6.50 per hour. Yasmine needs to earn at least \$130 to go to math camp. She can only work 10 hours at Target. Because of school and her vast social life, Yasmine can work a total of no more than 22 hours each week at her two jobs.

Give five viable solutions for this situation.



## Thinking Space

\$8/h Target  
6.50/h Jets  
10 hours or less at Target  
no more than 22

#hours Target	#hours Jets
10	12
9	13
10	10
8	14
12	10
7	15

way to start  
these are from  
solutions

$$\begin{aligned}
 10(8) + 12(6.50) &= 158 \\
 9(8) + 13(6.50) &= 156.5 \\
 10(8) + 10(6.50) &= 145 \\
 8(8) + 14(6.50) &= 155
 \end{aligned}$$

$$\begin{aligned}
 12(8) + 10(6.50) &= 161 \\
 7(8) + 15(6.50) &= 153
 \end{aligned}$$

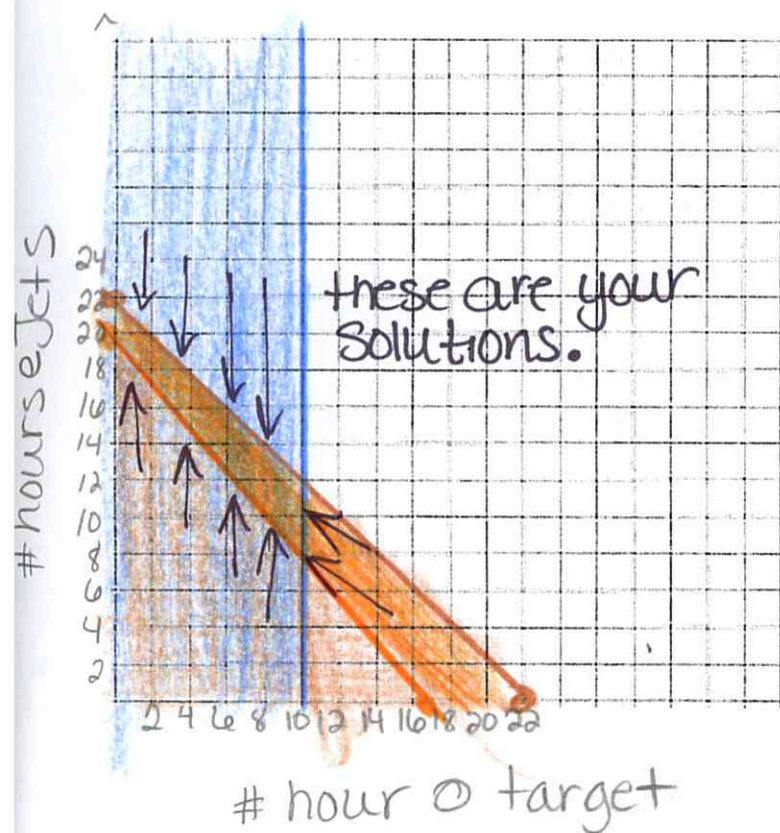
## Organized Solutions

#hours @ target	#hours Jets
10	12
9	13
10	10
8	14
12	10
7	15

## Equation Space

- ①  $x \leq 10$
- ②  $x + y \leq 22$
- ③  $8x + 6.50y \geq 130$

## Graphing Space



②  $x + y \leq 22$

$$\begin{array}{r|l} x & y \\ 0 & 22 \\ 22 & 0 \end{array}$$

$$\begin{aligned} 0 + y &\leq 22 \\ y &\leq 22 \end{aligned}$$

$$\begin{aligned} x + 0 &\leq 22 \\ x &\leq 22 \end{aligned}$$

③  $8x + 6.50y \geq 130$

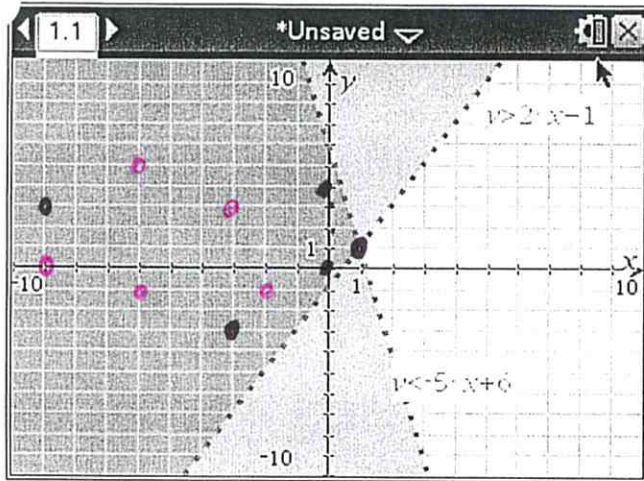
$$\begin{array}{r|l} x & y \\ 0 & 20 \\ 16.25 & 0 \end{array}$$

$$\begin{aligned} 8(0) + 6.50y &\geq 130 \\ 6.50y &\geq 130 \end{aligned}$$

$$\begin{aligned} 8x + 6.50(0) &\geq 130 \\ 8x &\geq 130 \\ x &\geq 16.25 \end{aligned}$$

$$2. y < -5x + 6$$

$$y > 2x - 1$$



A. Choose all of the ordered pairs that are solutions for the system.

- ☒  $(-9, 3)$ 
☒  $(0, 0)$ 
☒  $(-3, -3)$ 
☒  $(1, 4)$ 
☐  $(1, 1)$

B. Write 5 additional solutions to the system of linear inequalities (if any).

$(-3, 3)$      $(-9, 0)$      $(-2, -1)$      $(-6, 5)$      $(-6, -1)$