

**WARM-UP:** Graph the solution and state 2 possible solutions...

$$\{(x, y) \mid 2x + y > 8, x \in W, y \in W\}$$

$$\{(x, y) \mid y \leq 2, x \in W, y \in W\}$$

$$2x + y = 8$$

$$y = -2x + 8$$

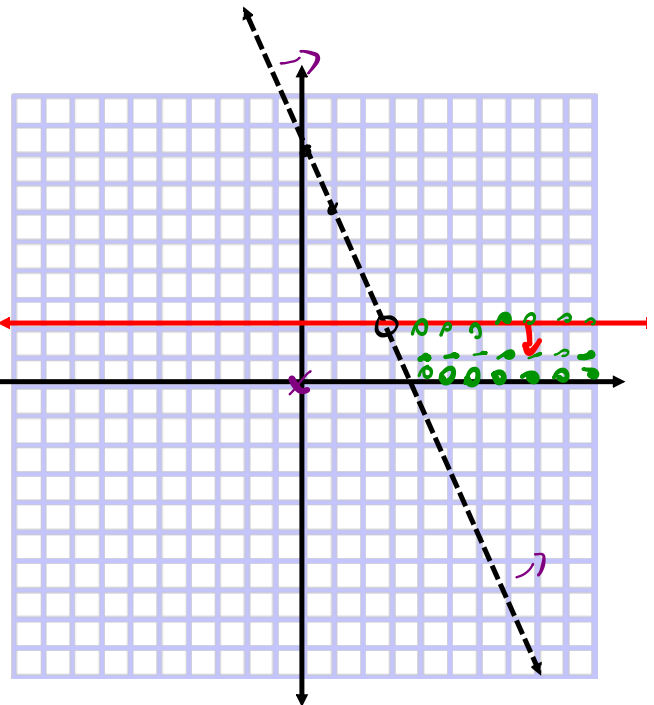
LS > RS

2(0) + 0	8
0	No

Test (0, 0)

$y = 2$   
horizontal  
LS  $\leq$  RS

0	$\neq 2$ yes
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# SOLUTIONS...

PUZZLE WORKSHEET:

**What Did the Toothless Old Termite Say When He Entered a Tavern?**

Graph each pair of inequalities below and indicate the solution set of the system with crosshatching or shading. The crosshatching or shading, if extended, would cover a set of three letters. Print these letters in the three boxes at the bottom of the page that contain the exercise number.

①  $y < x - 1$   
 $y > -3$

TOO

②  $x < 2$   
 $y < \frac{2}{3}x - 1$

ERE

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

TER

④  $y < x$   
 $3x + 2y > 4$

WHO

⑤  $x - 3y < 12$   
 $x > 2$

SEV

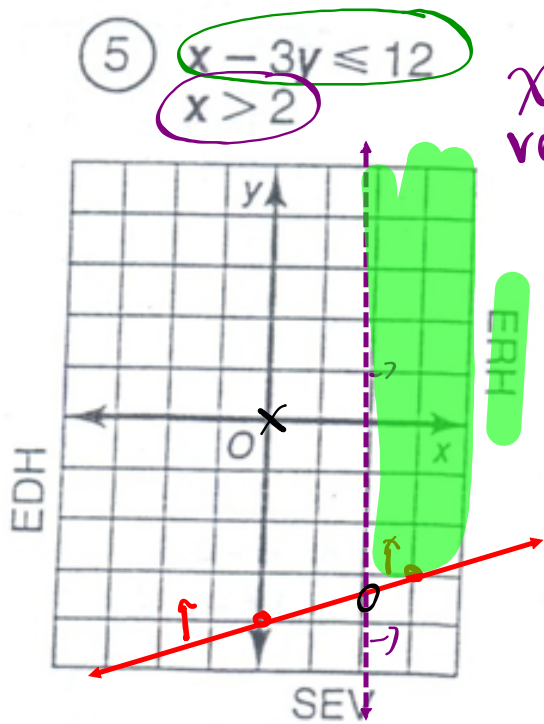
⑥  $y < 1$   
 $2x + y < 1$

ART

4	4	4	3	3	3	6	6	6	1	1	1	5	5	5	2	2	2
I	S	T	H	E	B	A	R	T	E	N	D	E	R	H	E	R	E

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COLLECTOR: This is a system of linear inequalities. The shaded region is the solution set.



$x = 2$   
vertical

$$x - 3y = 12$$

$$-3y = -x + 12$$


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

LS	$\leq$	RS
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0 - 3(0)	$\leq$	12
0	$\leq$	yes

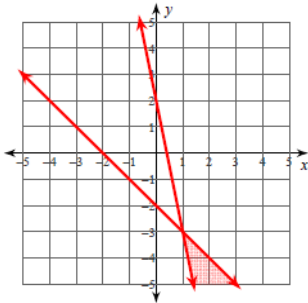


# HOMWORK...

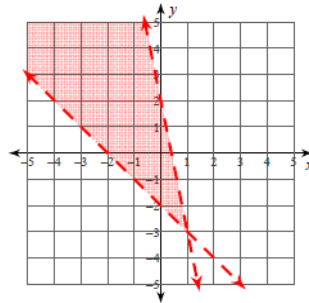
1)  Worksheet - Systems of Linear Inequations.docx

2) Quiz

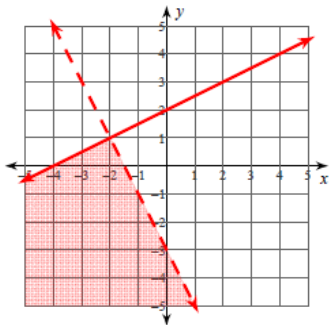
1)  $y \leq -x - 2$   
 $y \geq -5x + 2$



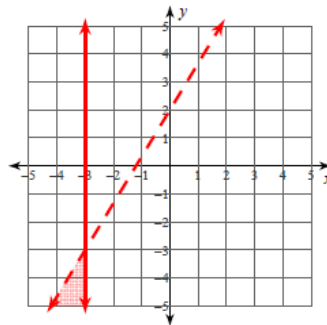
2)  $y > -x - 2$   
 $y < -5x + 2$



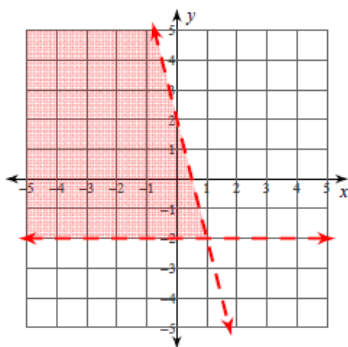
3)  $y \leq \frac{1}{2}x + 2$   
 $y < -2x - 3$



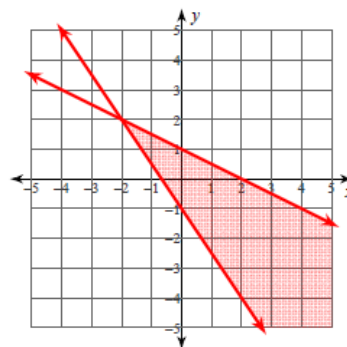
4)  $x \leq -3$   
 $y < \frac{5}{3}x + 2$



7)  $4x + y < 2$   
 $y > -2$



6)  $3x + 2y \geq -2$   
 $x + 2y \leq 2$



## Attachments

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Worksheet - Systems of Linear Inequations.docx