Algebra I
Modules 11/12 Review A

Name_____
Hr_____ **Date**_____

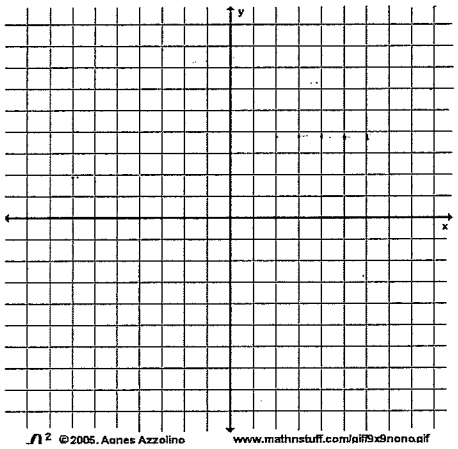
For <u>all</u> questions on this page...
Determine if it has ONE solution, NO solution, or INFINITELY MANY solutions.
If it has ONE solution, tell what it is <u>as an ordered pair</u>.

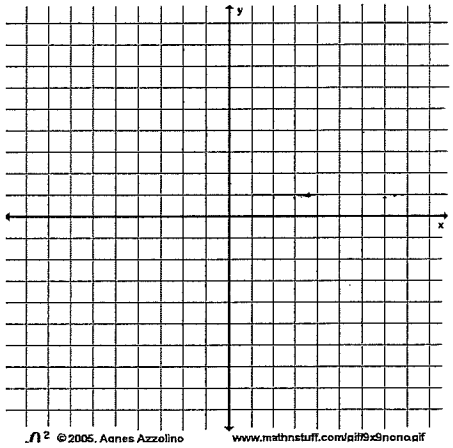
For 1 - 3, <u>GRAPH</u> each system of equations in order to find the solution.

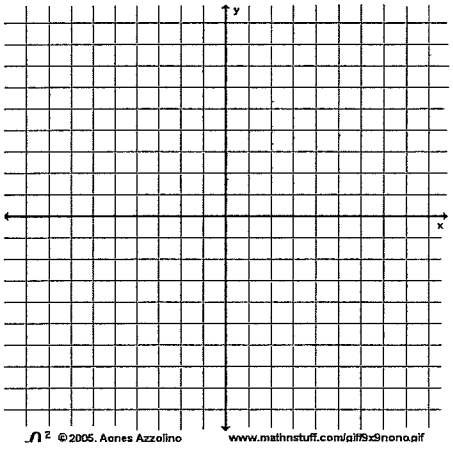
(1) $x + y = 4$
$x - y = 4$

(2) $y = \frac{1}{2}x + 3$
$y = x + 4$

(3) $x + y = -2$
$y = -x + 3$







For 4 - 6, use <u>SUBSTITUTION</u> to find the solution.

(4) $5x + 7y = 33$
$x = 9 - 2y$

(5) $x = 3y + 2$
$-2x + 6y = 2$

(6) $3x + 5y = -3$
$-3x + y = -15$

For 7 – 9, use <u>ELIMINATION</u> to find the solution.

(7) $x + 4y = -8$
$x - 4y = -8$

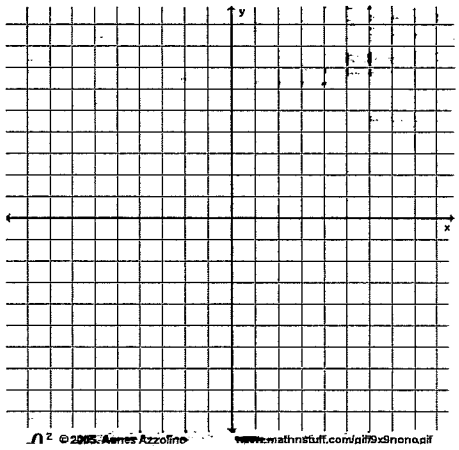
(8) $3x - 2y = 6$
$9x - 6y = 18$

(9) $7x + 3y = 13$
$3x - 2y = -1$

For 10 - 12, graph the system of inequalities.

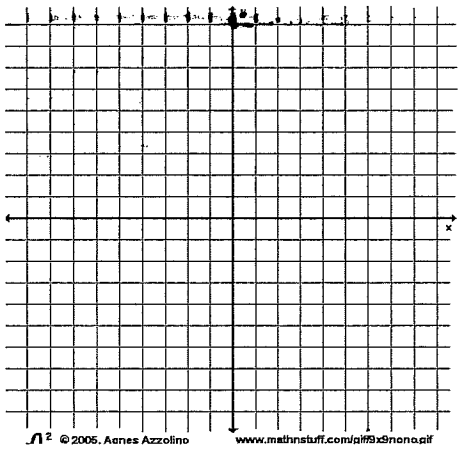
(10) $y < -3x - 1$

$y \geq 4x + 2$



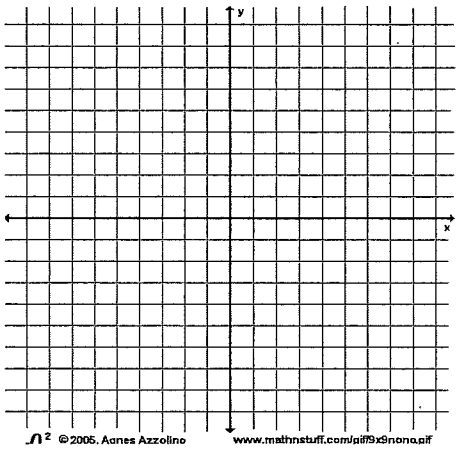
(11) $y > -x + 3$

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



(12) $y > x - 1$

$y \leq -2x + 7$



(15) A local fish market is selling fish and lobster by the pound. The fish costs $5.00 a pound, while the lobster costs $10.50 a pound. The fish market sells 30 total pounds and makes $194. Represent this situation with a system of equations and solve it to find how many pounds of fish and lobster were sold.

(16) The Smith family is deciding between two lawn-care services. Green Lawn charges a $49 startup fee plus $29 per month. Yard Guard charges a $25 startup fee plus $37 per month. Write and solve a system of equations to determine how many months it will take for both companies cost to be the same. What is the cost?

(17) Jack is buying tables and chairs for his deck party. Tables cost $26 and chairs cost $15.He plans to spend no more than $780 and buy at least 20 items. Write a system of inequalities and graph them. Show and describe the solution set, and suggest a reasonable solution to the problem.