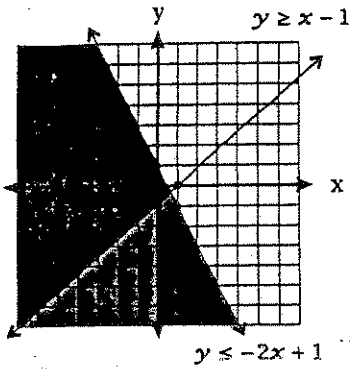
Period ____

Graphing Systems of Linear Inequalities

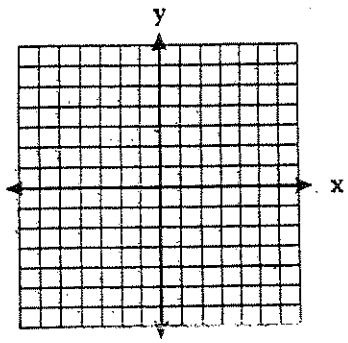
Graph the system or linear inequalities.

Example: $\begin{cases} y \geq x - 1 \\ y \leq -2x + 1 \end{cases}$

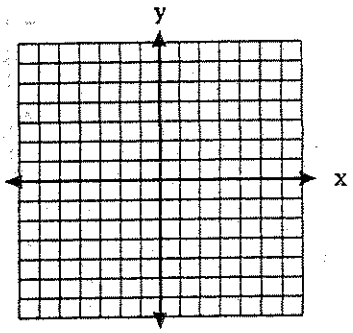
Hint: **<** or **>** = dashed lines
≤ or **≥** = solid lines



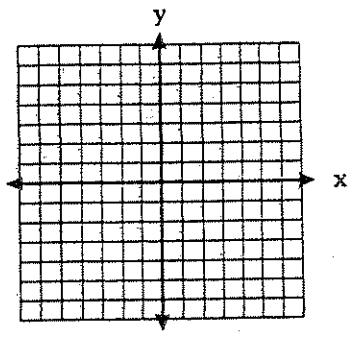
1. $\begin{cases} x - 2y < -8 \\ 3x + y > 4 \end{cases}$



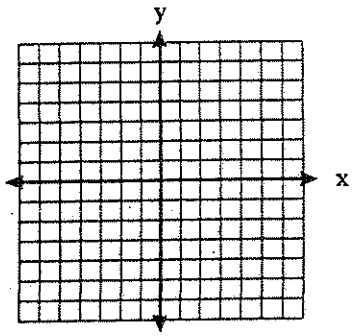
2. $\begin{cases} 3x - 5y > 11 \\ 4x - 3y \geq 5 \end{cases}$



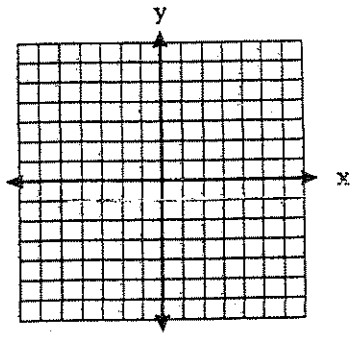
3. $\begin{cases} y > \frac{1}{2}x + 3 \\ y > 3 \end{cases}$



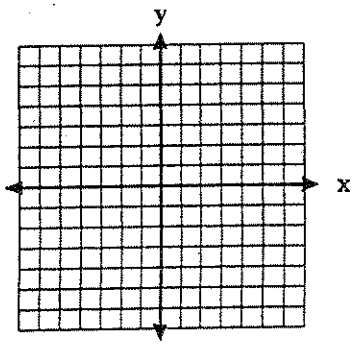
4. $\begin{cases} 2x + 3y \leq 14 \\ 3x - 2y < -5 \end{cases}$



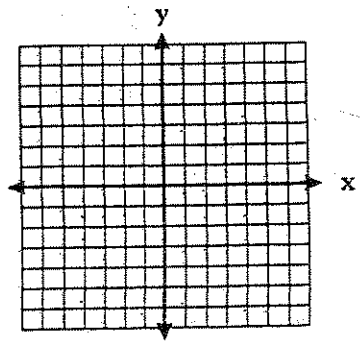
5. $\begin{cases} 5x + 2y > -8 \\ 2x - 5y \leq -9 \end{cases}$



6. $\begin{cases} x \geq 6 \\ y \leq 2x - 6 \end{cases}$



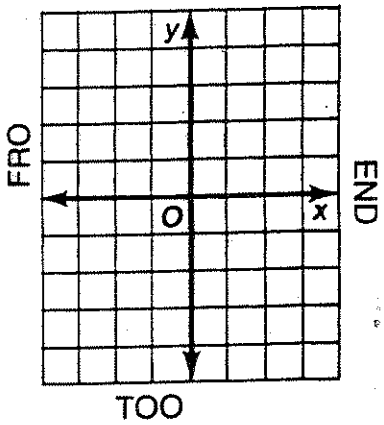
7. $\begin{cases} y > -2x + 4 \\ y \leq 6x - 3 \end{cases}$



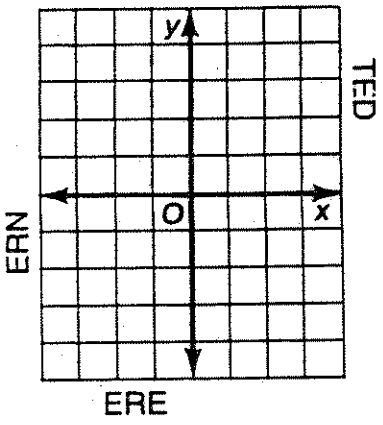
What Did the Toothless Old Termite Say When He Entered a Tavern ?

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.

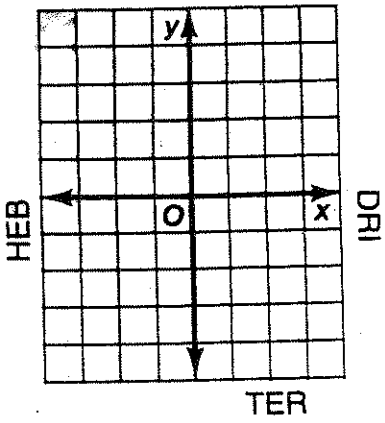
① $y \leq x - 1$
$y \geq -3$



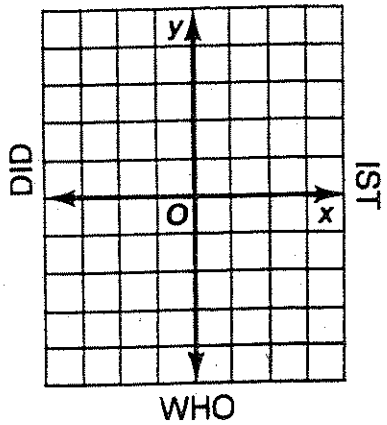
② $x \leq 2$
$y \leq \frac{2}{3}x - 1$



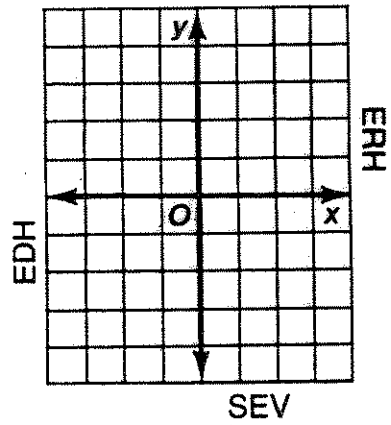
③ $y < -x + 1$
$y > \frac{1}{2}x - 2$



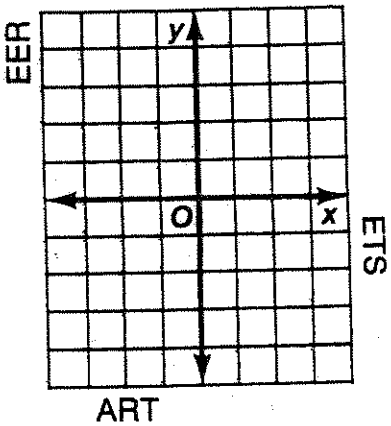
④ $y < x$
$3x + 2y > 4$



⑤ $x - 3y \leq 12$
$x > 2$



⑥ $y \leq 1$
$2x + y < 1$



4	4	4	3	3	3	6	6	6	1	1	1	5	5	5	2	2	2

OBJECTIVE 2–j: To solve systems of linear inequalities in two variables by graphing.