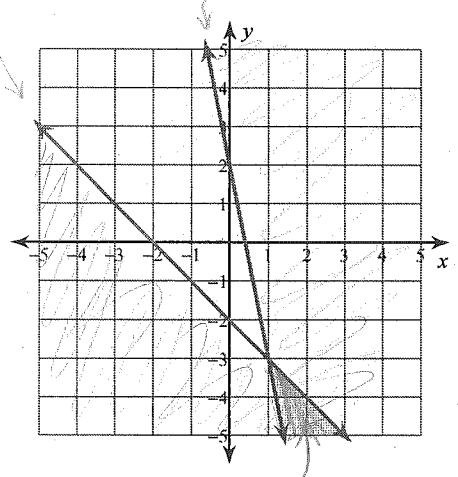
Kuta Software - Infinite Algebra 1 — 6.2 Practice — Name Key

Solving Systems of Inequalities

Date _____ Period ____

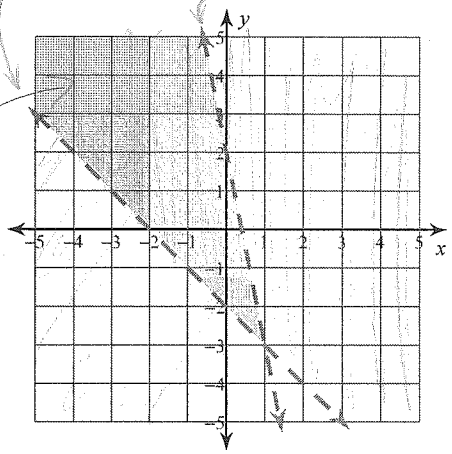
Sketch the solution to each system of inequalities.

1) $y \le -x - 2$
$y \ge -5x + 2$



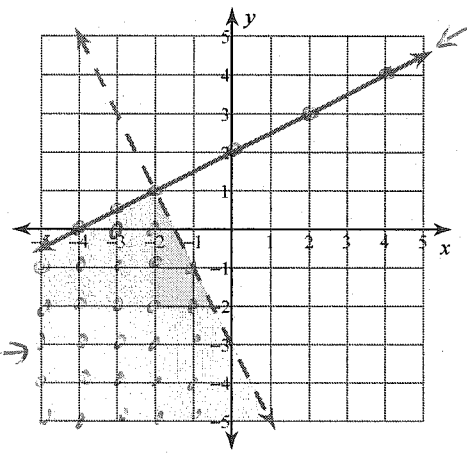
2) $y > -x - 2$
$y < -5x + 2$

dashed — assume $x \in R$, $y \in R$



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

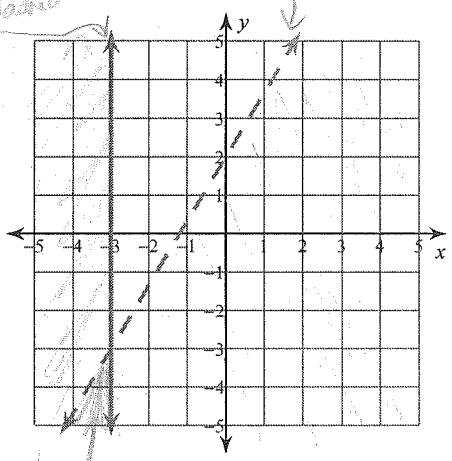
$x, y \in I$



- no shading, only stipples
- stippled line for $y \le \frac{1}{2}x + 2$ (not solid)

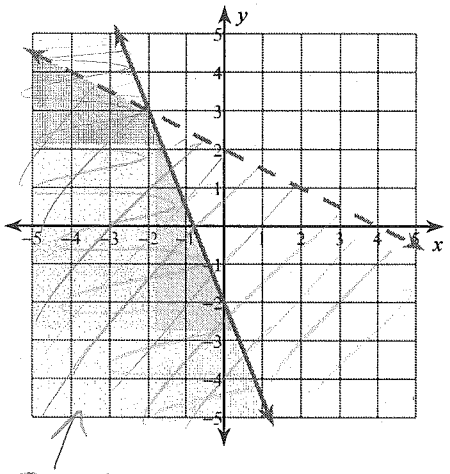
4) $x \le -3$
$y < \frac{5}{3}x + 2$

solid — dashed — test pt (0,0): $0 < \frac{5}{3}(0) + 2$ ✓



5) $y \leq -\frac{5}{2}x - 2$

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



Solution area

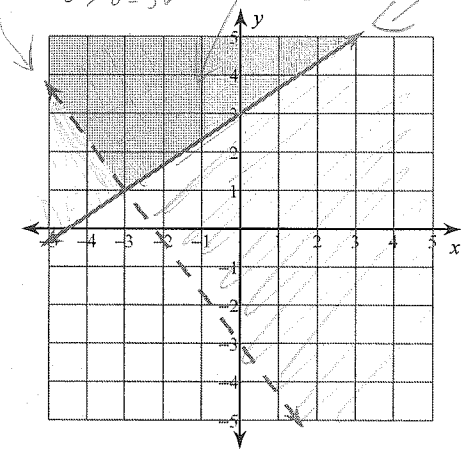
6) $y \geq \frac{2}{3}x + 3$

$y > -\frac{4}{3}x - 3$

$0 > 0 + 3$ NO

$0 > 0 - 3$ ✓

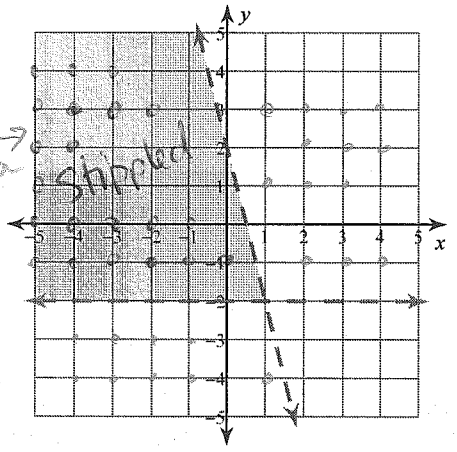
Solution area



7) $4x + y < 2$

$y > -2$

$x, y \in I$



Soln area → Stippled

NO shading, only stippled

8) $3x + 2y \geq -2$

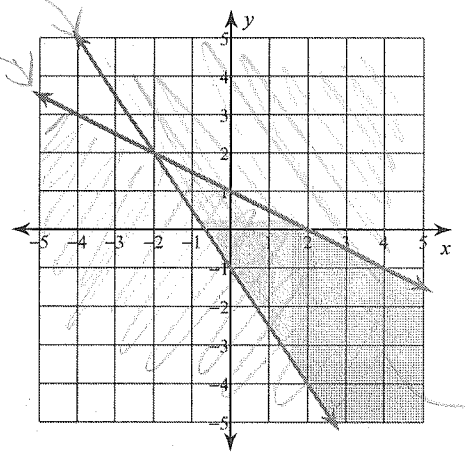
$x + 2y \leq 2$

$2y \geq -3x - 2$

$y \geq -\frac{3}{2}x - 1$ → $0 \geq 0 - 1$ ✓

$2y \leq -x + 2$

$y \leq -\frac{1}{2}x + 1$ → $0 \leq 1$ ✓



Solution area