# Systems of Linear Inequalities in Two Variables

Total points = 23

$$x-y \le 1 \checkmark \qquad x+y < 4 \checkmark$$
 B.1. 
$$2-1 \le 1 \checkmark \qquad 2+1 < 4 \checkmark \qquad \therefore YES \checkmark$$

$$x \ge -y \checkmark \qquad 2x + y > 1 \checkmark$$

2. 
$$-1 \ge -(1)\sqrt{\phantom{-}}$$
  $2(-1)+1 > 1\sqrt{\phantom{-}}$   $\therefore$  NO  $\sqrt{\phantom{-}}$ 

$$-1 \ge -1$$
  $\checkmark$   $-1 > 1$ 

$$x - 2y \le 4\checkmark \qquad x + 2y \ge 0\checkmark$$

3. 
$$2-2(-1) \le 4\sqrt{\phantom{1}} 2+2(-1) \ge 0\sqrt{\phantom{1}} YES\sqrt{\phantom{1}}$$

$$4 \le 4\sqrt{\phantom{a}}$$
  $0 \ge 0\sqrt{\phantom{a}}$ 

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$$1 \le 1 \checkmark$$
  $3 < 4 \checkmark$ 

$$x \ge -y \checkmark \qquad 2x + y > 1 \checkmark$$

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$$x - 2y \le 4\sqrt{\qquad} \qquad x + 2y \ge 0\sqrt{\qquad}$$

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$$2-2(-1) \le 4\sqrt{\phantom{-}} 2+2(-1) \ge 0\sqrt{\phantom{-}} : YES \sqrt{\phantom{-}}$$

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$$x-2y \le 4\sqrt{\qquad} \qquad x+2y \ge 0\sqrt{\qquad}$$

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$$2-1 \le 1\sqrt{\phantom{+}}$$
  $2+1 < 4\sqrt{\phantom{+}}$   $\therefore$  YES  $\sqrt{\phantom{+}}$   $1 \le 1\sqrt{\phantom{+}}$   $3 < 4\sqrt{\phantom{+}}$ 

$$x \ge -y\sqrt{\phantom{-}}$$
  $2x + y > 1\sqrt{\phantom{-}}$ 

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$$-1 \ge -(1)\sqrt{\phantom{-}}$$
  $2(-1)+1 > 1\sqrt{\phantom{-}}$   $\therefore NO\sqrt{\phantom{-}}$   $-1 \ge -1\sqrt{\phantom{-}}$   $-1 > 1\sqrt{\phantom{-}}$ 

$$x - 2y \le 4\sqrt{\qquad} \qquad x + 2y \ge 0\sqrt{\qquad}$$

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