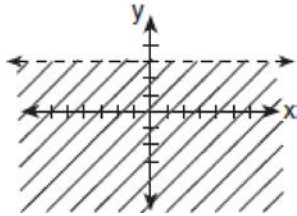


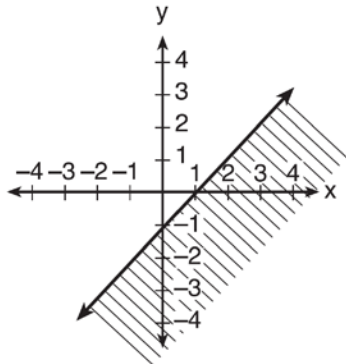
A.REI.D.12: Graphing Linear Inequalities 1a

- 1 Which inequality is represented by the accompanying graph?



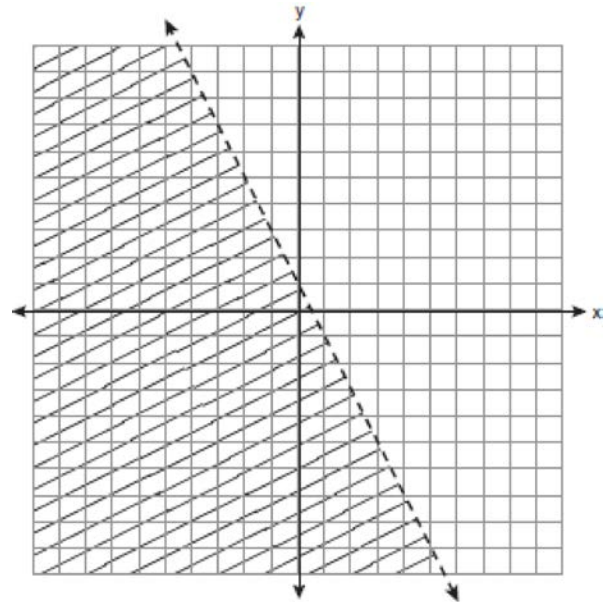
- 1) $y < 3$
- 2) $y > 3$
- 3) $y \leq 3$
- 4) $y \geq 3$

- 2 The diagram below shows the graph of which inequality?



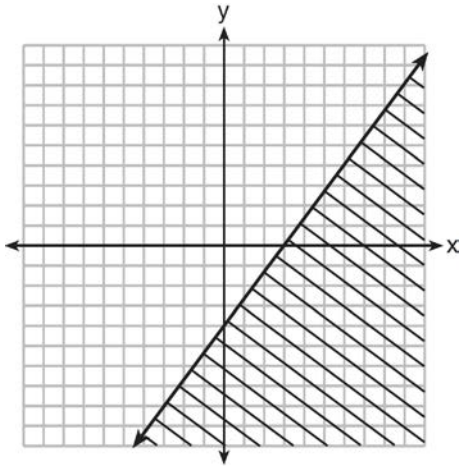
- 1) $y > x - 1$
- 2) $y \geq x - 1$
- 3) $y < x - 1$
- 4) $y \leq x - 1$

- 3 Which inequality is represented by the graph below?



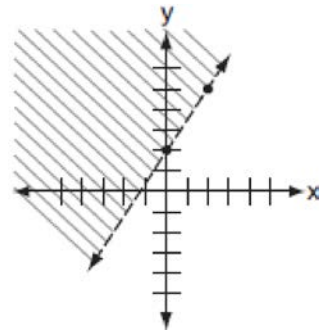
- 1) $y < 2x + 1$
- 2) $y < -2x + 1$
- 3) $y < \frac{1}{2}x + 1$
- 4) $y < -\frac{1}{2}x + 1$

4 Which inequality is shown in the graph below?



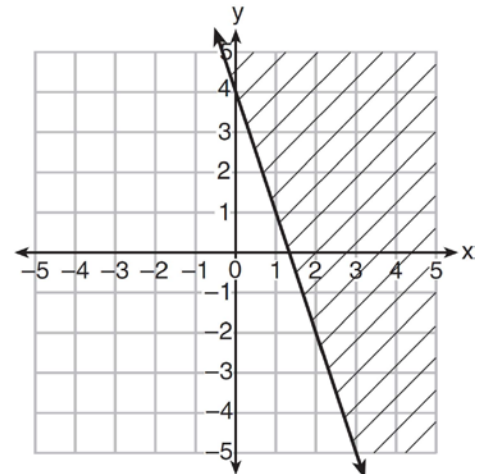
- 1) $y \leq \frac{4}{3}x + 3$
- 2) $y \geq \frac{4}{3}x + 3$
- 3) $y \leq \frac{4}{3}x - 4$
- 4) $y \geq \frac{4}{3}x - 4$

5 Which inequality is shown in the accompanying diagram?



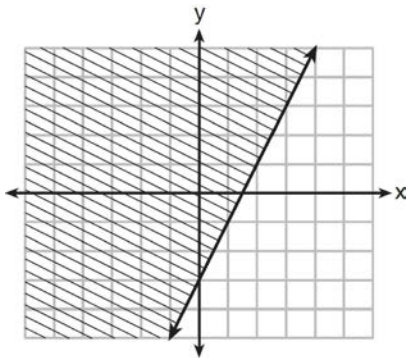
- 1) $y > \frac{3}{2}x + 2$
- 2) $y < \frac{3}{2}x + 2$
- 3) $y \geq \frac{3}{2}x + 2$
- 4) $y \leq \frac{3}{2}x + 2$

6 Which inequality is represented in the graph below?



- 1) $y \geq -3x + 4$
- 2) $y \leq -3x + 4$
- 3) $y \geq -4x - 3$
- 4) $y \leq -4x - 3$

- 7 Which inequality is represented by the graph below?



- 1) $y \leq 2x - 3$
- 2) $y \geq 2x - 3$
- 3) $y \leq -3x + 2$
- 4) $y \geq -3x + 2$

- 8 In the graph of $y \leq -x$, which quadrant is completely shaded?

- 1) I
- 2) II
- 3) III
- 4) IV

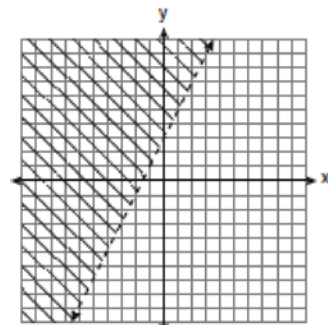
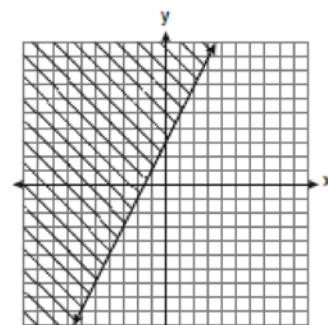
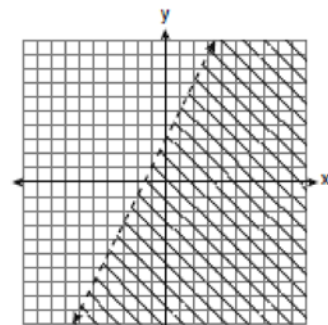
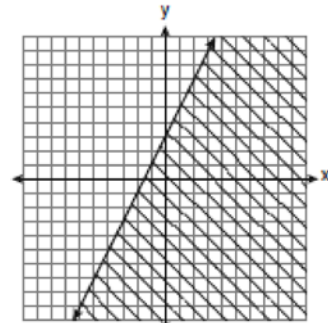
- 9 Which quadrant will be completely shaded in the graph of the inequality $y \leq 2x$?

- 1) Quadrant I
- 2) Quadrant II
- 3) Quadrant III
- 4) Quadrant IV

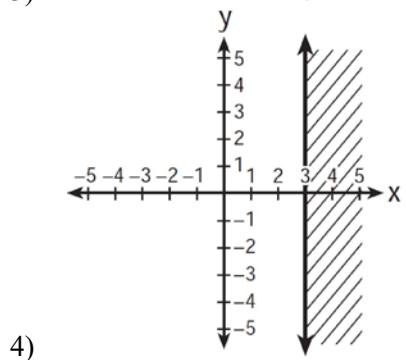
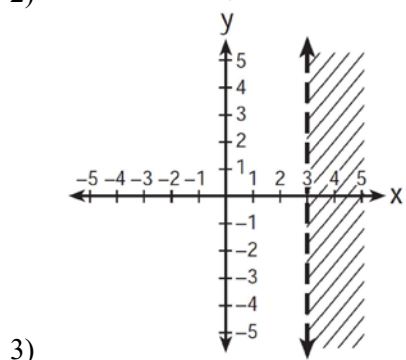
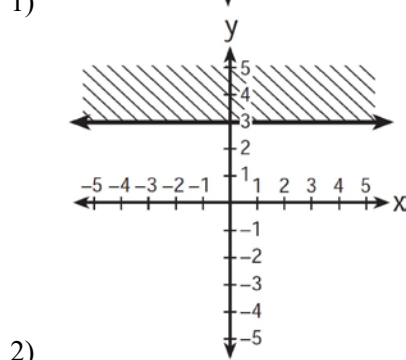
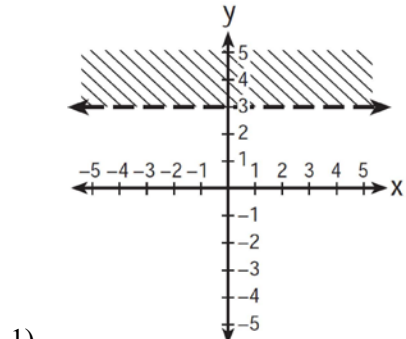
- 10 Which ordered pair is *not* in the solution set of $y > 2x + 1$?

- 1) (1,4)
- 2) (1,6)
- 3) (3,8)
- 4) (2,5)

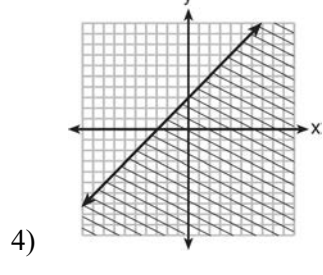
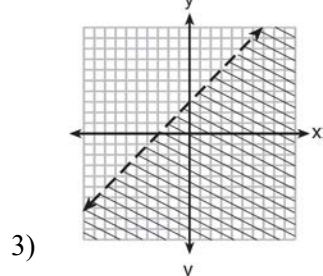
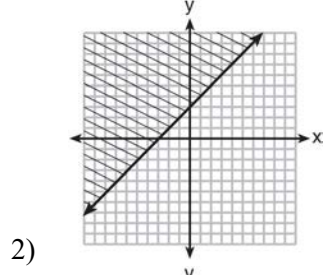
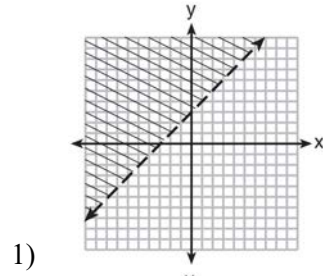
- 11 Which graph represents the solution of $3y - 9 \leq 6x$?



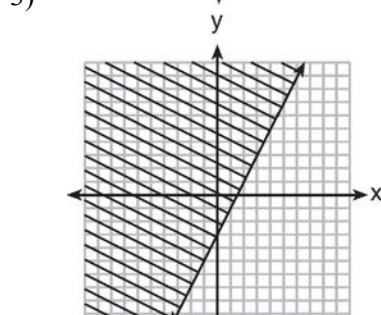
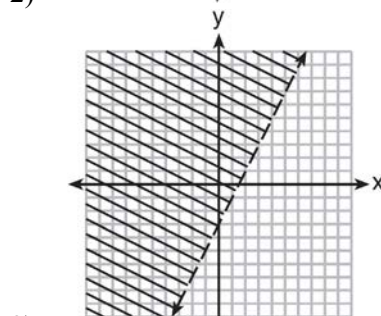
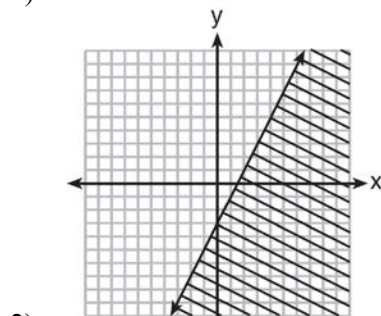
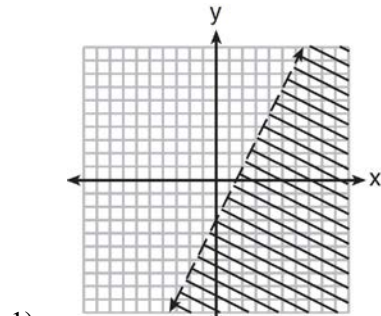
12 Which graph represents the inequality $y > 3$?



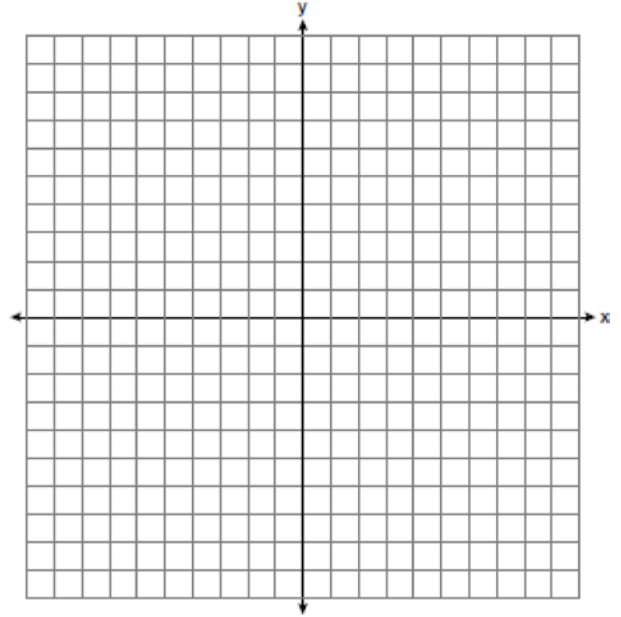
13 Which graph represents the inequality $y \geq x + 3$?



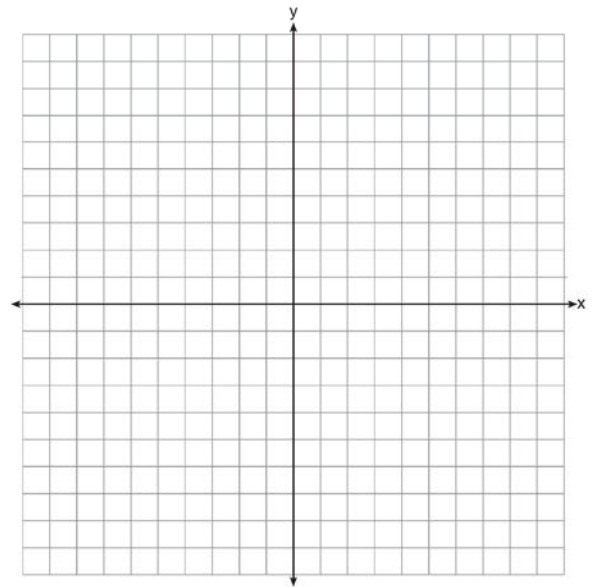
14 Which graph represents the solution of $2y + 6 > 4x$?



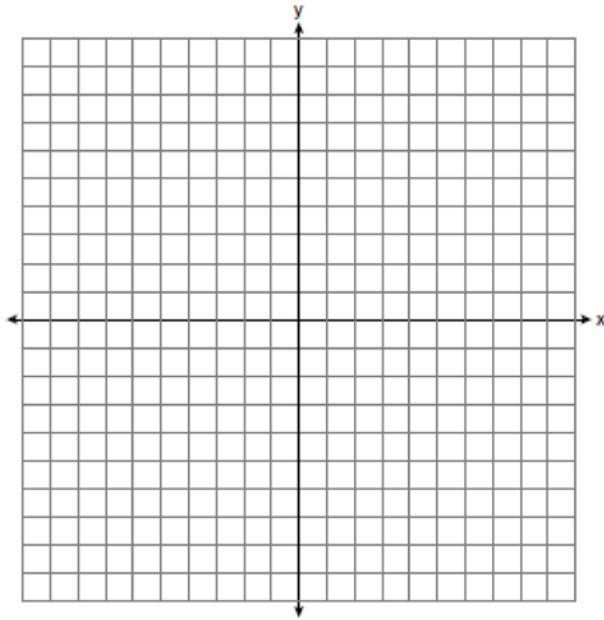
15 Graph the inequality $y > 2x - 5$ on the set of axes below. State the coordinates of a point in its solution.



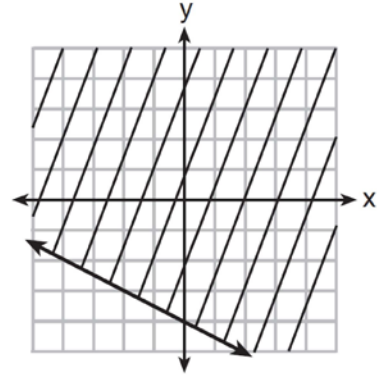
16 On the set of axes below, graph the inequality $2x + y > 1$.



- 17 Graph the inequality $y + 4 < -2(x - 4)$ on the set of axes below.

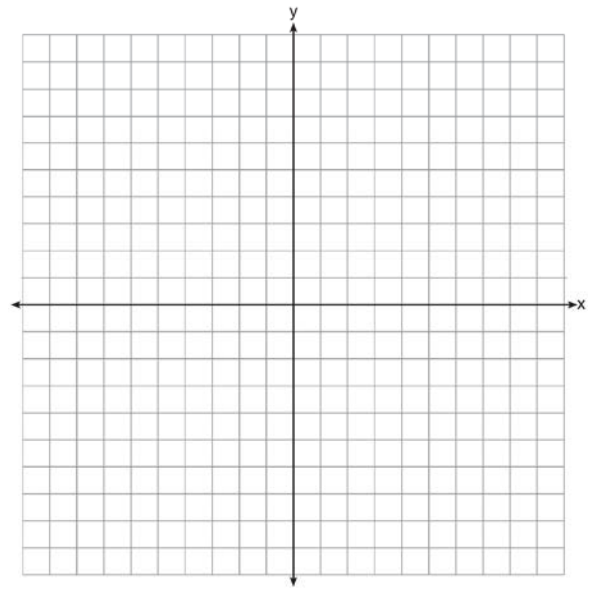
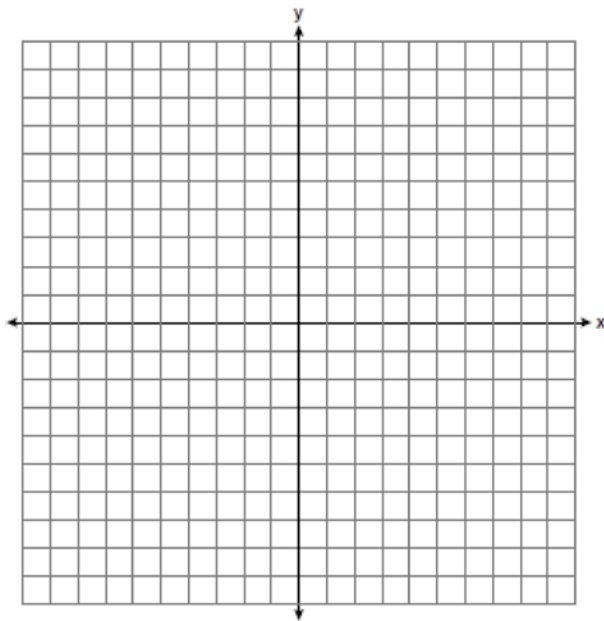


- 19 Shawn incorrectly graphed the inequality $-x - 2y \geq 8$ as shown below.



Explain Shawn's mistake. Graph the inequality correctly on the set of axes below.

- 18 Graph the solution set for the inequality $4x - 3y > 9$ on the set of axes below. Determine if the point $(1, -3)$ is in the solution set. Justify your answer.



A.REI.D.12: Graphing Linear Inequalities 1a Answer Section

- 1 ANS: 1 REF: 010629a
 2 ANS: 4 REF: 061320ia
 3 ANS: 2

The slope of the inequality is $-\frac{1}{2}$.

REF: fall0720ia

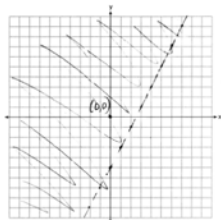
- 4 ANS: 3 REF: 061505ia
 5 ANS: 1 REF: 010828a
 6 ANS: 1 REF: 061505ai
 7 ANS: 2 REF: 011605ai
 8 ANS: 3 REF: 080220a
 9 ANS: 4 REF: 061028ia
 10 ANS: 4
 $5 > 2(2) + 1$ is not true.

REF: 080513a

- 11 ANS: 1 REF: 060920ia
 12 ANS: 1 REF: 011210ia
 13 ANS: 2 REF: 081314ia
 14 ANS: 3
 $y > 2x - 3$

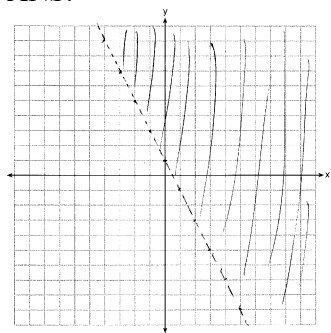
REF: 011422ia

- 15 ANS:



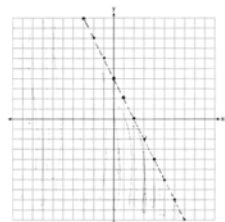
REF: 011729ai

16 ANS:



REF: 081526ai

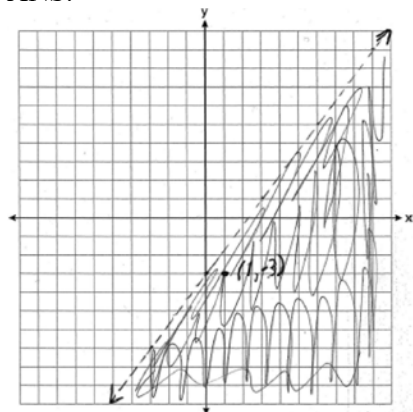
17 ANS:



$$y < -2x + 4$$

REF: 061730ai

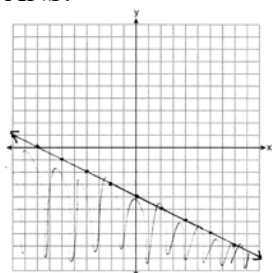
18 ANS:



(1, -3) is in the solution set. $4(1) - 3(-3) > 9$
 $4 + 9 > 9$

REF: 011038ia

19 ANS:



REF: 081634ai