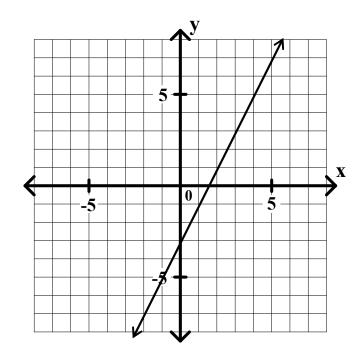
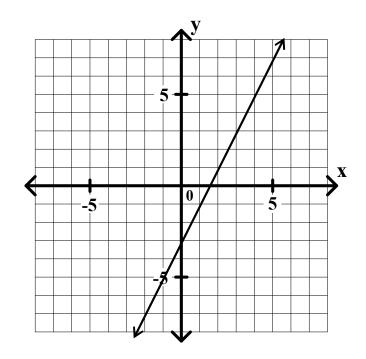
# Algebra I Lesson #3 Unit 7 Class Worksheet #3 For Worksheets #6 - #8

Consider the equation y = 2x - 3.

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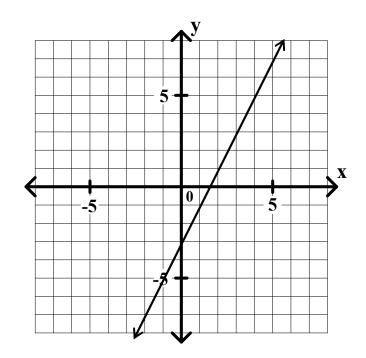
Consider the equation y = 2x - 3.



Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

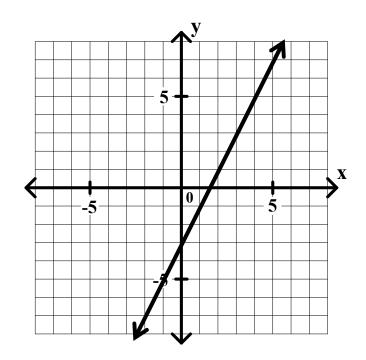
(a) the points on the line



Consider the equation y = 2x - 3.

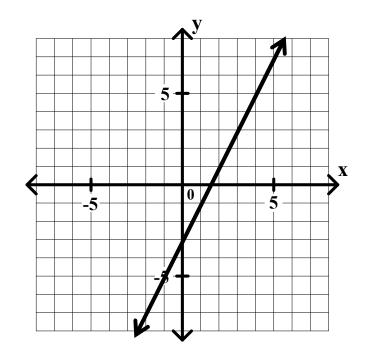
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(a) the points on the line



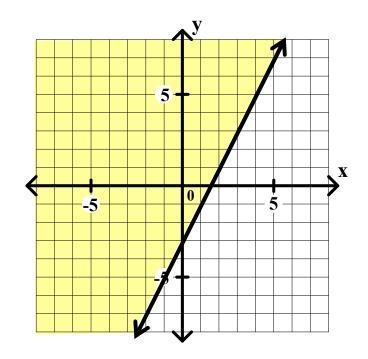
Consider the equation y = 2x - 3.

- (a) the points on the line
- (b) the points :aboveøthe line



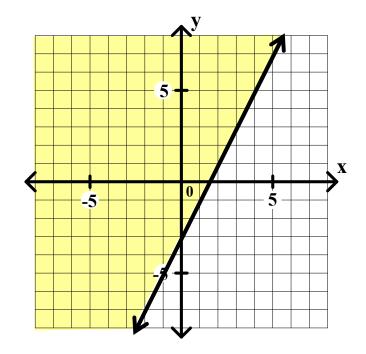
Consider the equation y = 2x - 3.

- (a) the points on the line
- (b) the points :aboveøthe line



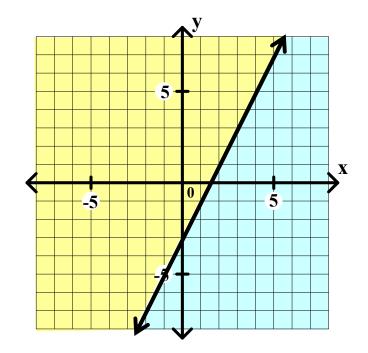
Consider the equation y = 2x - 3.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line



Consider the equation y = 2x - 3.

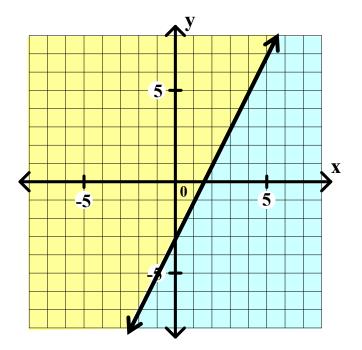
- (a) the points on the line
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- (c) the points :belowøthe line



Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

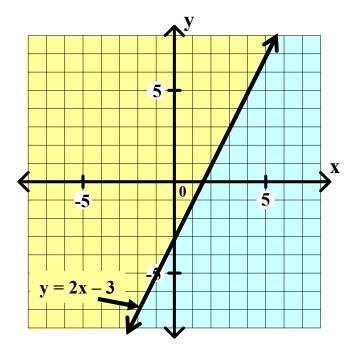


Of course the points **on** the line make the equation true.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

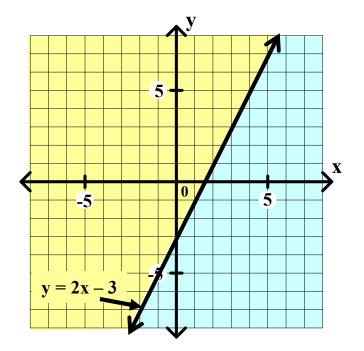


Of course the points **on** the line make the equation true.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

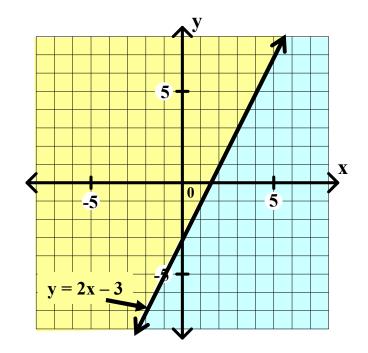
- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line



Of course the points **on** the line make the equation true. This lesson is concerned with the other two sets of points.

Consider the equation y = 2x - 3.

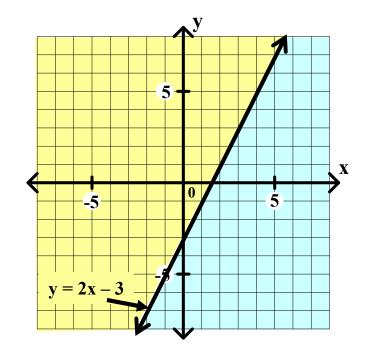
- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line



Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

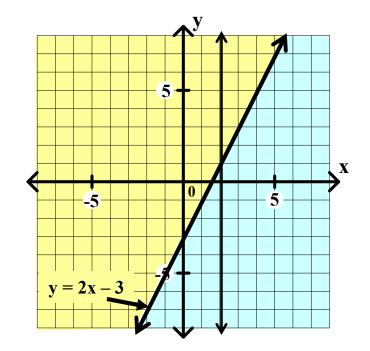


Consider the vertical line x = 2.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

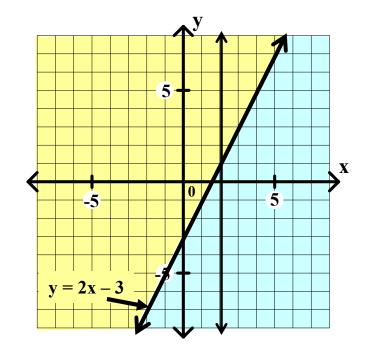


Consider the vertical line x = 2.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
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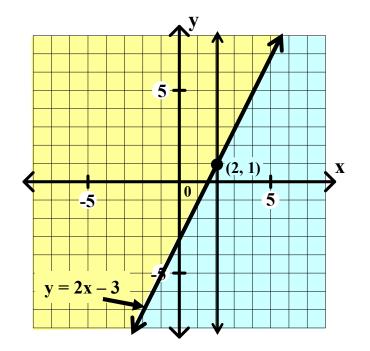


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1).

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

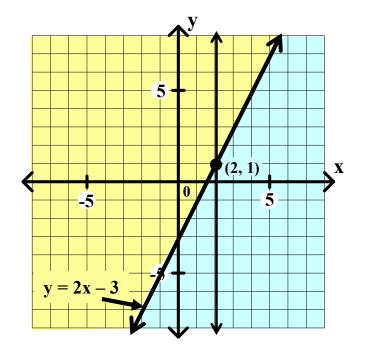


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1).

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
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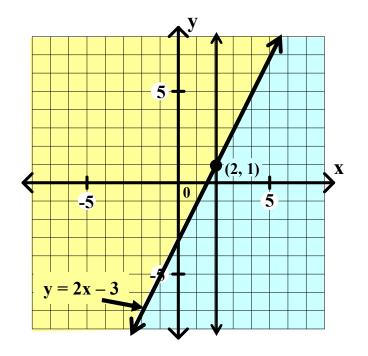


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

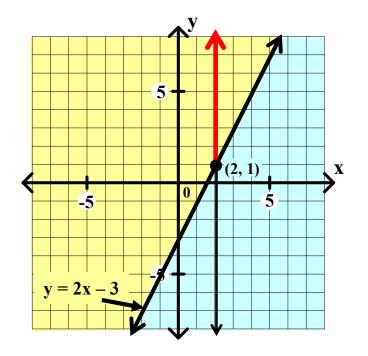


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1).

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

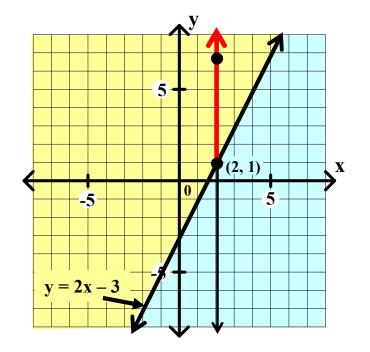


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1).

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The graph of this equation divides the plane into 3 distinct sets of points.

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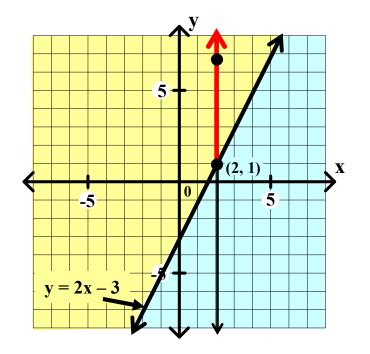


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1).

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The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

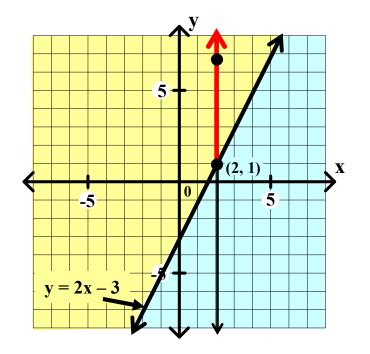


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1). The value of x has not changed.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

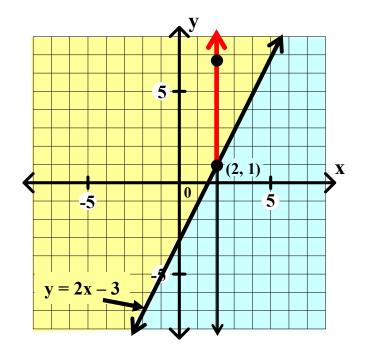


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1). The value of x has not changed. Therefore, the value of 2x - 3 has not changed.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

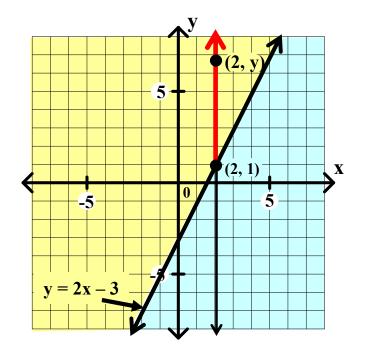


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1). The value of x has not changed. Therefore, the value of 2x - 3 has not changed. However, the value of y has increased.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

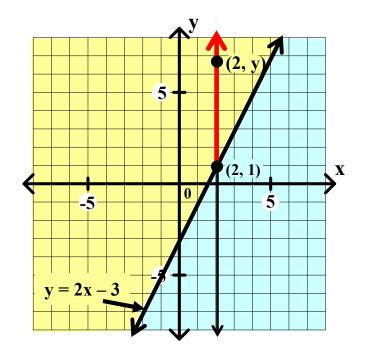


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1). The value of x has not changed. Therefore, the value of 2x - 3 has not changed. However, the value of y has increased.

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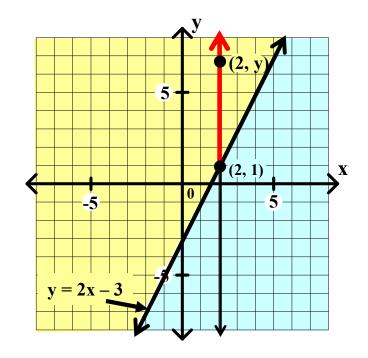


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1). The value of x has not changed. Therefore, the value of 2x - 3 has not changed. However, the value of y has increased. Therefore, at any point above (2, 1) on the line x = 2,

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
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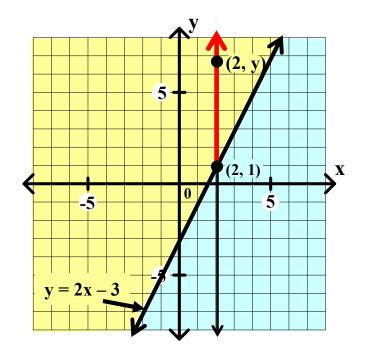


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1). The value of x has not changed. Therefore, the value of 2x - 3 has not changed. However, the value of y has increased. Therefore, at any point above (2, 1) on the line x = 2, y > 2x - 3!!

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

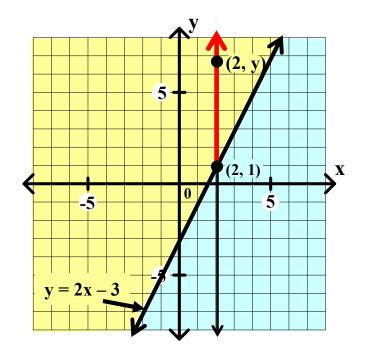


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Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

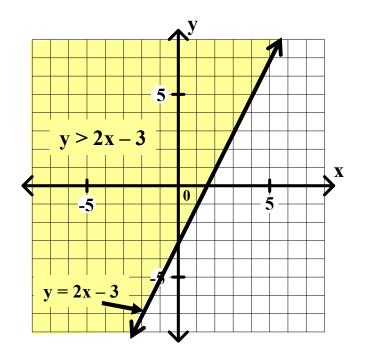


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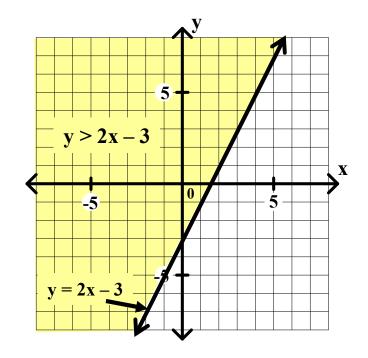


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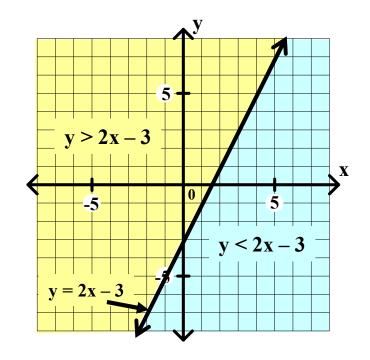


Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1). The value of x has not changed. Therefore, the value of 2x - 3 has not changed. However, the value of y has increased. Therefore, at any point above (2, 1) on the line x = 2, y > 2x - 3!! Clearly, what was true for the vertical line x = 2 would have been true for any vertical line. Therefore, y > 2x - 3 at any point above the line y = 2x - 3. In the same way, it can be shown that y < 2x - 3 at any point below the line.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

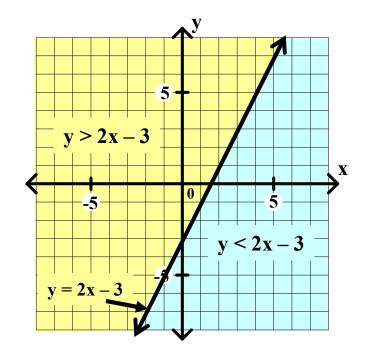
- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line



Consider the vertical line x = 2. This line intersects the line y = 2x - 3 at the point (2, 1). Of course, the equation is true at this point. Consider any point on the line x = 2 above the point (2, 1). The value of x has not changed. Therefore, the value of 2x - 3 has not changed. However, the value of y has increased. Therefore, at any point above (2, 1) on the line x = 2, y > 2x - 3!! Clearly, what was true for the vertical line x = 2 would have been true for any vertical line. Therefore, y > 2x - 3 at any point above the line y = 2x - 3. In the same way, it can be shown that y < 2x - 3 at any point below the line.

Consider the equation y = 2x - 3.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line



Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

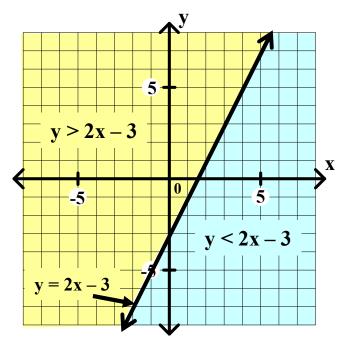
Consider the 4 inequalities below.

$$y > 2x - 3 \qquad y \ge 2x - 3$$

$$y \ge 2x - 3$$

$$y < 2x - 3$$

$$x-3 y \le 2x-3$$

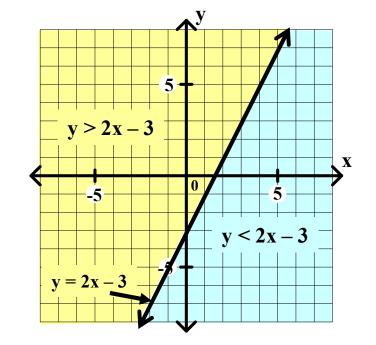


Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

Consider the 4 inequalities below.



$$y > 2x - 3$$

$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

$$y < 2x - 3 \qquad y \le 2x - 3$$

$$y \le 2x - 3$$

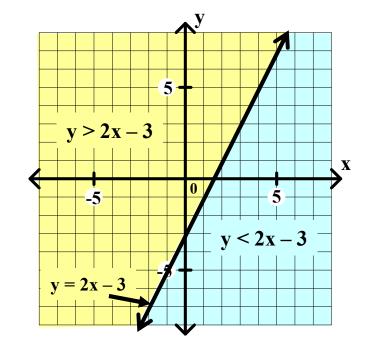
These inequalities involve the points above the line y = 2x - 3.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

Consider the 4 inequalities below.



$$v > 2x - 3$$

$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

$$y < 2x - 3$$

$$y \le 2x - 3$$

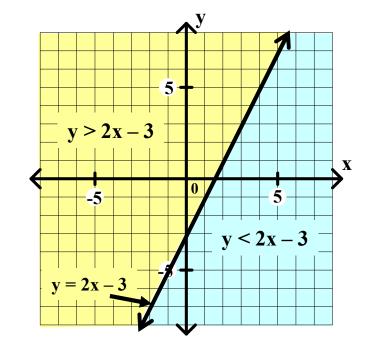
These inequalities involve the points above the line y = 2x - 3. y > 2x - 3 does not include the points on the line.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

Consider the 4 inequalities below.



$$y > 2x - 3$$

$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

$$y < 2x - 3$$

$$y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y > 2x - 3 does not include the points on the line.

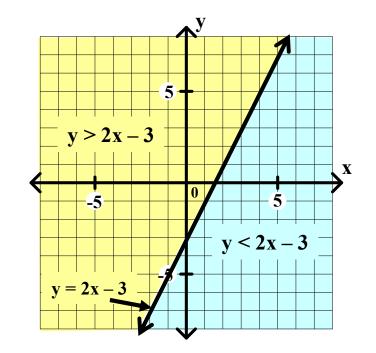
 $y \ge 2x - 3$  does include the points on the line.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

Consider the 4 inequalities below.



$$y > 2x - 3$$

$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

$$y < 2x - 3$$

$$y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

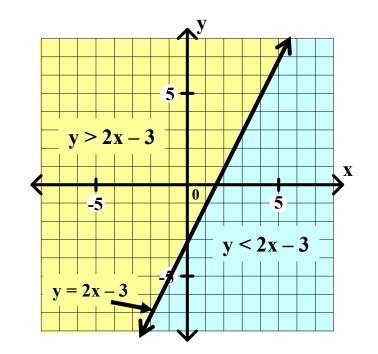
These inequalities involve the points below the line y = 2x - 3.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points :belowøthe line

Consider the 4 inequalities below.



$$y > 2x - 3$$

$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

$$y < 2x - 3$$

$$y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

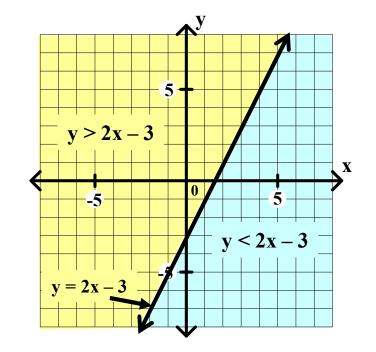
These inequalities involve the points below the line y = 2x - 3. y < 2x - 3 does not include the points on the line.

Consider the equation y = 2x - 3.

The graph of this equation divides the plane into 3 distinct sets of points.

- (a) the points on the line
- (b) the points :aboveøthe line
- (c) the points ÷belowøthe line

Consider the 4 inequalities below.



$$y > 2x - 3$$

$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

$$y < 2x - 3$$

$$y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

These inequalities involve the points below the line y = 2x - 3.

y < 2x - 3 does not include the points on the line.

 $y \le 2x - 3$  does include the points on the line.

$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

Consider these graphs.

$$y > 2x - 3$$

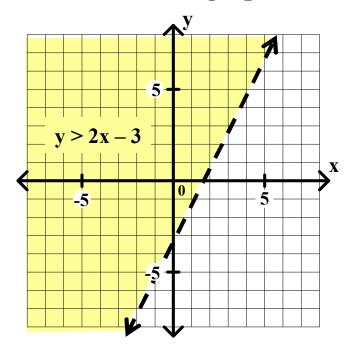
$$y \ge 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

#### Consider these graphs.



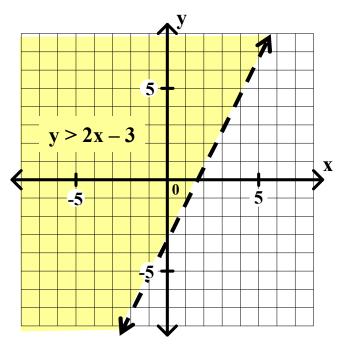
$$y > 2x - 3 \qquad \qquad y \ge 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

#### Consider these graphs.



The :dashed lineøindicates the points on the line <u>are not</u> included in the graph.

$$y > 2x - 3$$

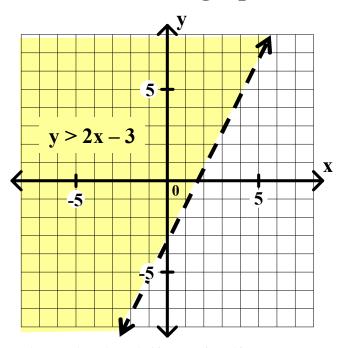
$$y \ge 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

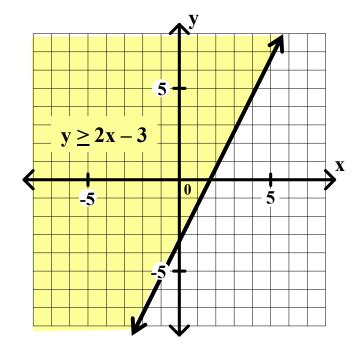
y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

#### Consider these graphs.



The idashed lineøindicates the points on the line are not included in the graph.



$$y > 2x - 3$$

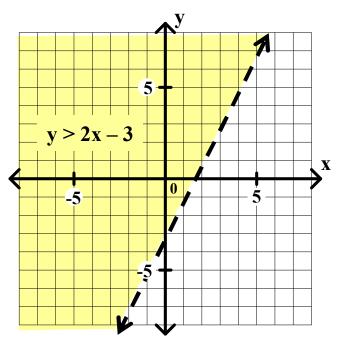
$$y \ge 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

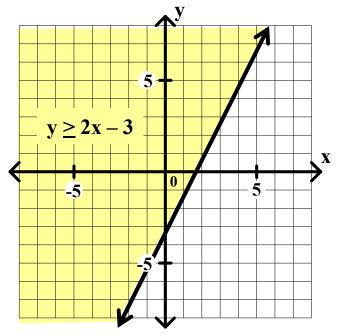
y > 2x - 3 does not include the points on the line.

 $y \ge 2x - 3$  does include the points on the line.

#### Consider these graphs.



The :dashed lineøindicates the points on the line <u>are not</u> included in the graph.



The :solid lineøindicates the points on the line <u>are</u> included in the graph.

$$y < 2x - 3 \qquad \qquad y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y < 2x - 3 does not include the points on the line.

 $y \le 2x - 3$  does include the points on the line.

$$y < 2x - 3 \qquad \qquad y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y < 2x - 3 does not include the points on the line.

 $y \le 2x - 3$  does include the points on the line.

Consider these graphs.

$$y < 2x - 3$$

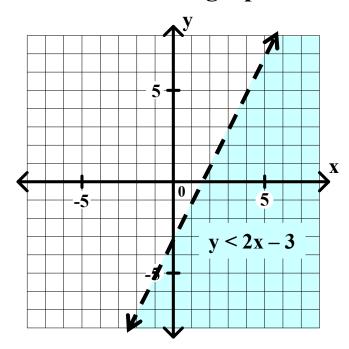
$$y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y < 2x - 3 does not include the points on the line.

 $y \le 2x - 3$  does include the points on the line.

#### Consider these graphs.



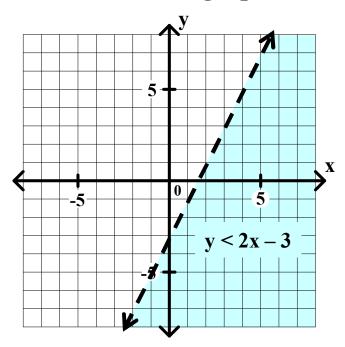
$$y < 2x - 3 \qquad \qquad y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

y < 2x - 3 does not include the points on the line.

 $y \le 2x - 3$  does include the points on the line.

#### Consider these graphs.



The :dashed lineøindicates the points on the line <u>are not</u> included in the graph.

$$y < 2x - 3$$

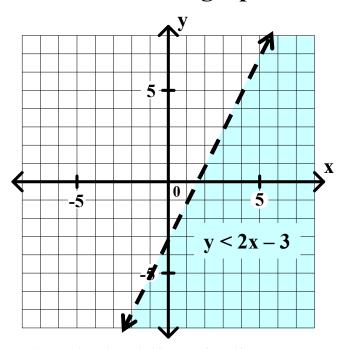
$$y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

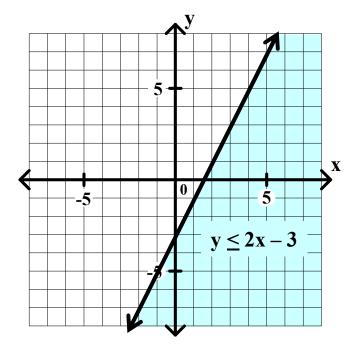
y < 2x - 3 does not include the points on the line.

 $y \le 2x - 3$  does include the points on the line.

#### Consider these graphs.



The idashed lineøindicates the points on the line are not included in the graph.



$$y < 2x - 3$$

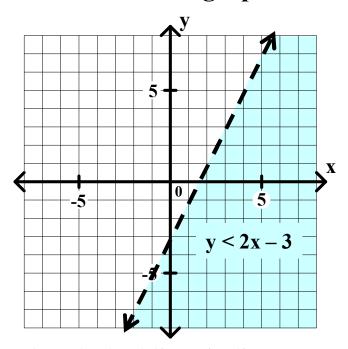
$$y \le 2x - 3$$

These inequalities involve the points above the line y = 2x - 3.

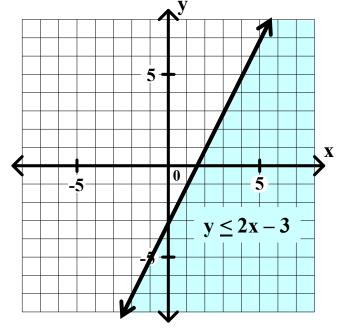
y < 2x - 3 does not include the points on the line.

 $y \le 2x - 3$  does include the points on the line.

#### Consider these graphs.



The ÷dashed lineøindicates the points on the line <u>are not</u> included in the graph.



The  $\pm$ solid lineøindicates the points on the line <u>are</u> included in the graph.

Given any oblique line y = mx + b,

$$y > mx + b$$

$$y > mx + b$$
  $y \ge mx + b$ 

$$y > mx + b y \ge mx + b$$

$$y \ge mx + b$$

$$y < mx + b$$

$$y > mx + b$$

$$y > mx + b y \ge mx + b$$

$$y < mx + b$$

$$y \le mx + b$$

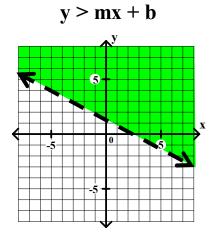
Given any oblique line y = mx + b, there are 4 related inequalities. Their graphs look like this.

$$y > mx + b$$

$$y > mx + b y \ge mx + b$$

$$y < mx + b$$

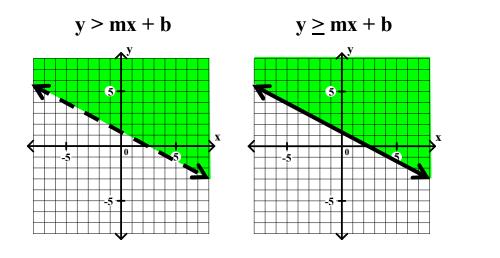
$$y \le mx + b$$



$$y \ge mx + b$$

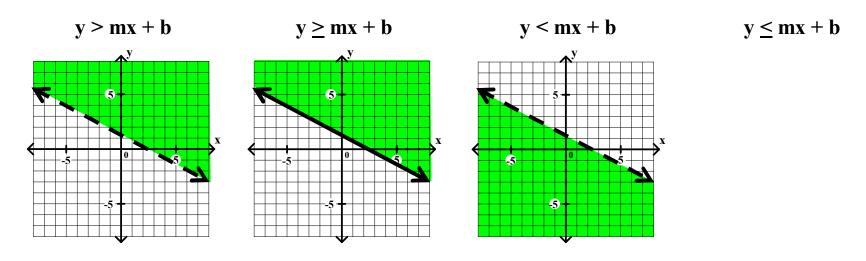
$$y < mx + b$$

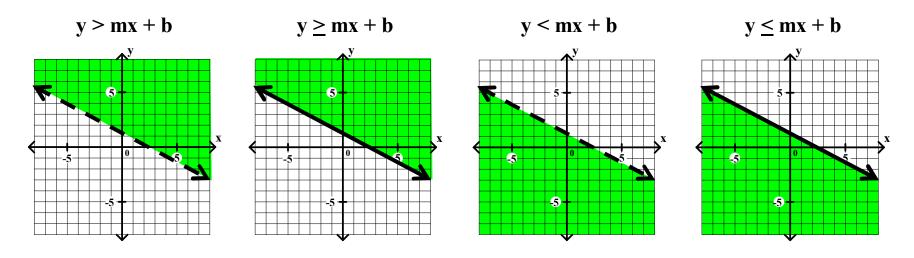
$$y \le mx + b$$



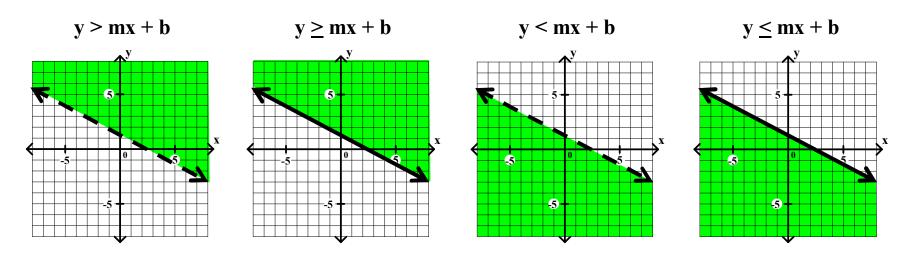
$$y < mx + b$$

$$y \le mx + b$$

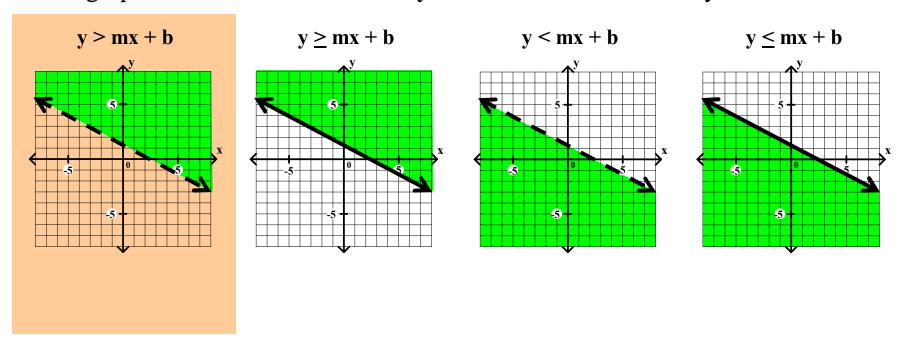




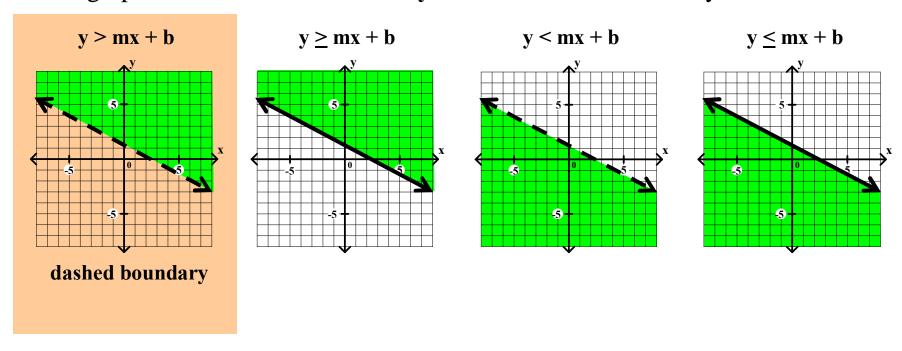
Given any oblique line y = mx + b, there are 4 related inequalities.



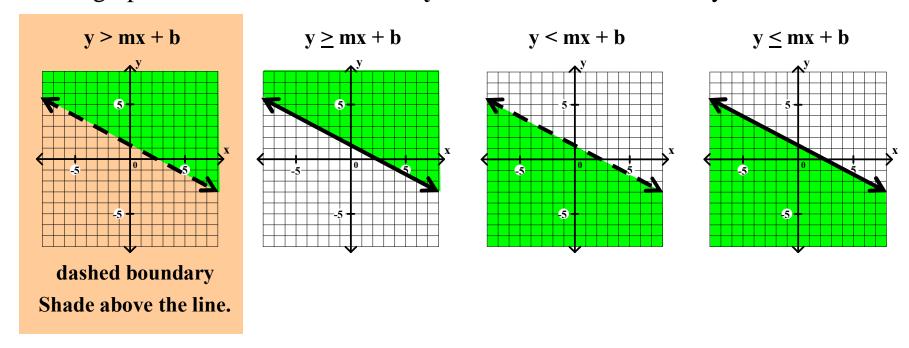
Given any oblique line y = mx + b, there are 4 related inequalities.



Given any oblique line y = mx + b, there are 4 related inequalities.

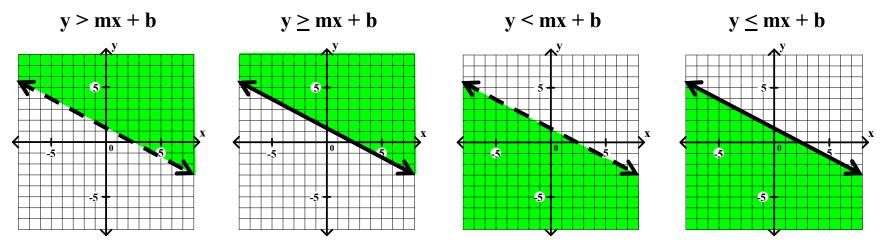


Given any oblique line y = mx + b, there are 4 related inequalities.



Given any oblique line y = mx + b, there are 4 related inequalities.

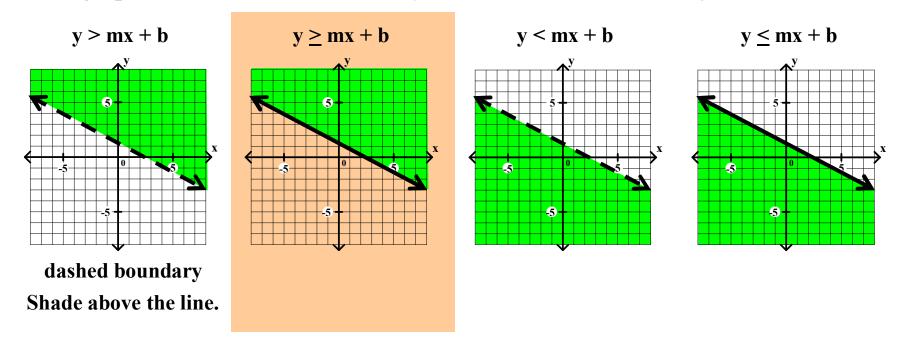
Their graphs look like this. The line y = mx + b is the  $\pm b$ oundary line  $\phi$  in each case.



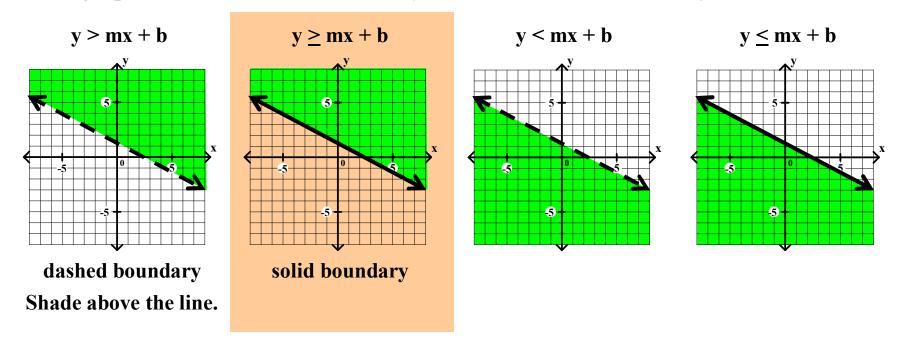
dashed boundary

Shade above the line.

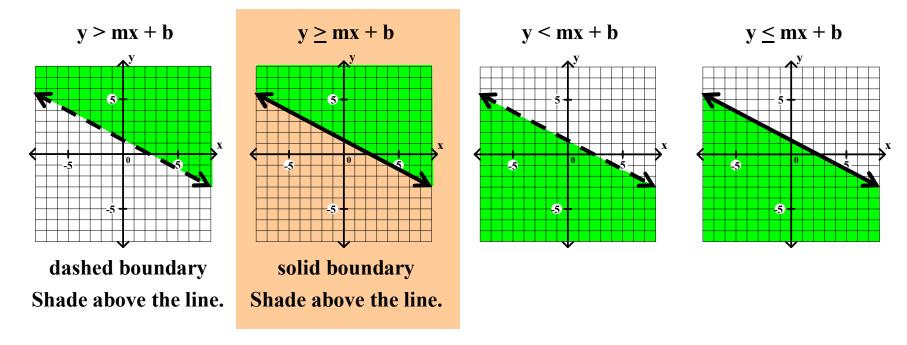
Given any oblique line y = mx + b, there are 4 related inequalities.



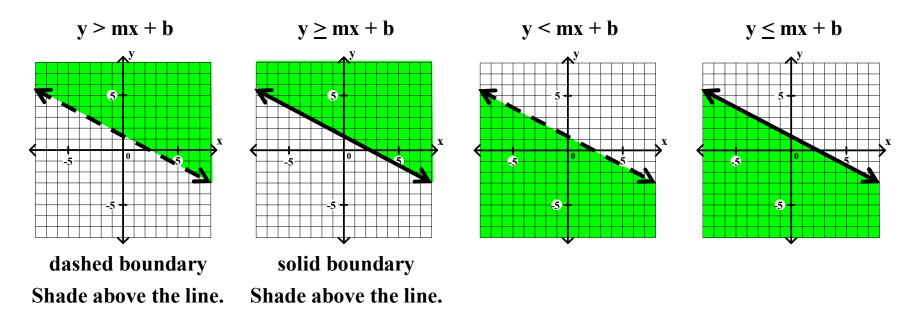
Given any oblique line y = mx + b, there are 4 related inequalities.



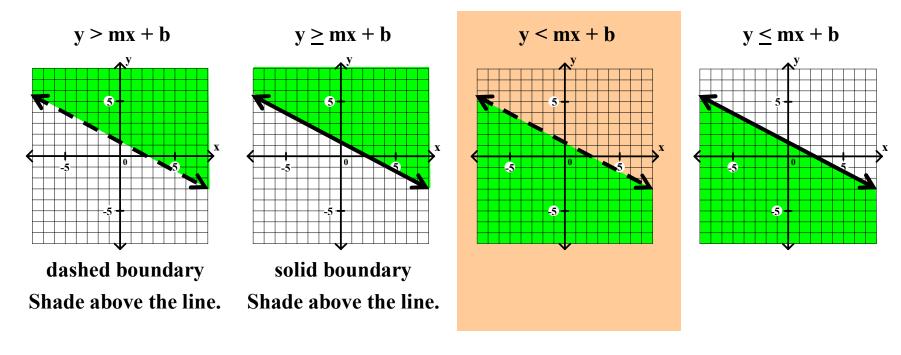
Given any oblique line y = mx + b, there are 4 related inequalities.



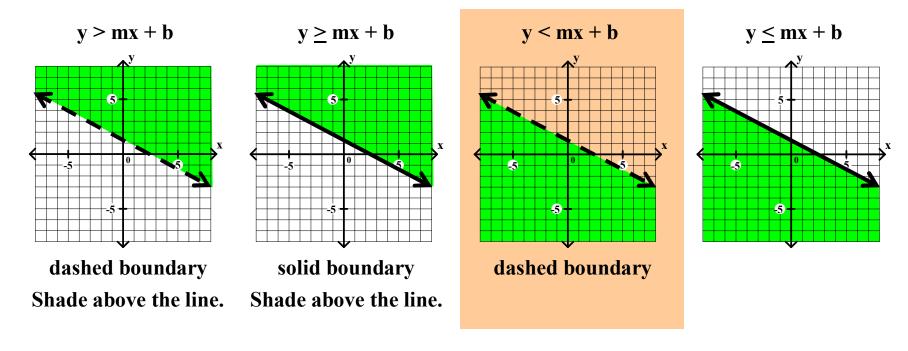
Given any oblique line y = mx + b, there are 4 related inequalities.



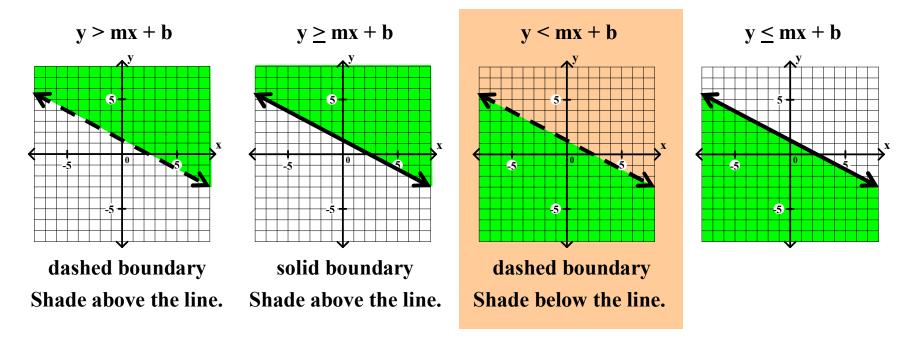
Given any oblique line y = mx + b, there are 4 related inequalities.



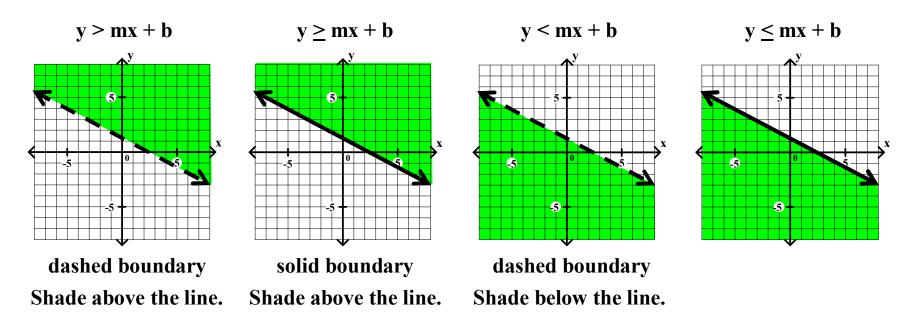
Given any oblique line y = mx + b, there are 4 related inequalities.



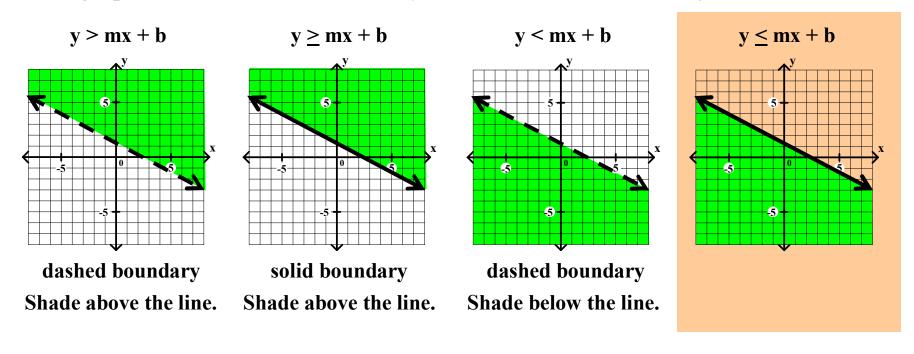
Given any oblique line y = mx + b, there are 4 related inequalities.



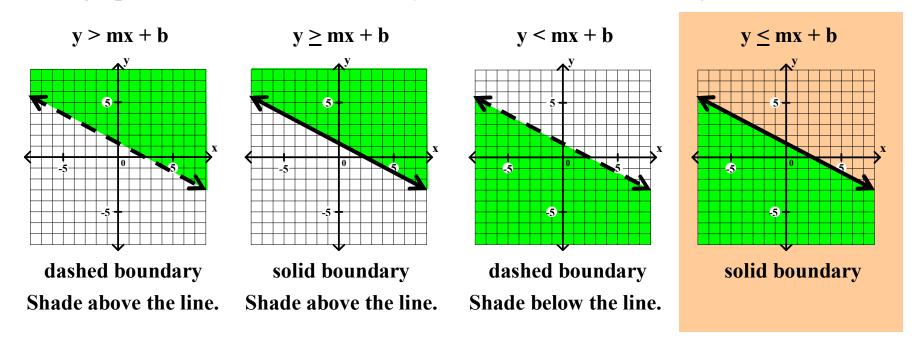
Given any oblique line y = mx + b, there are 4 related inequalities.



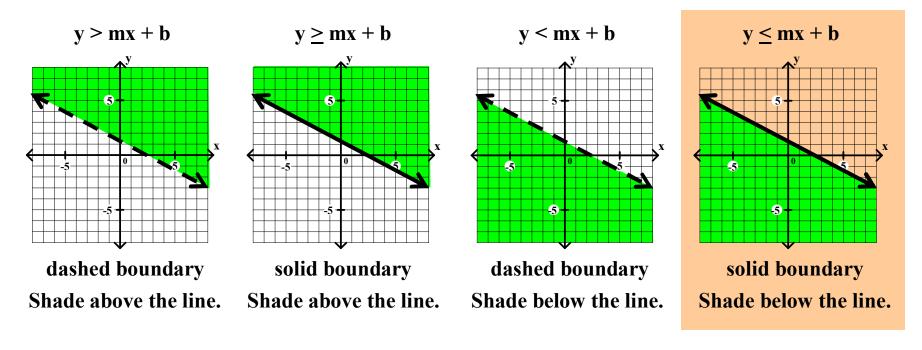
Given any oblique line y = mx + b, there are 4 related inequalities.



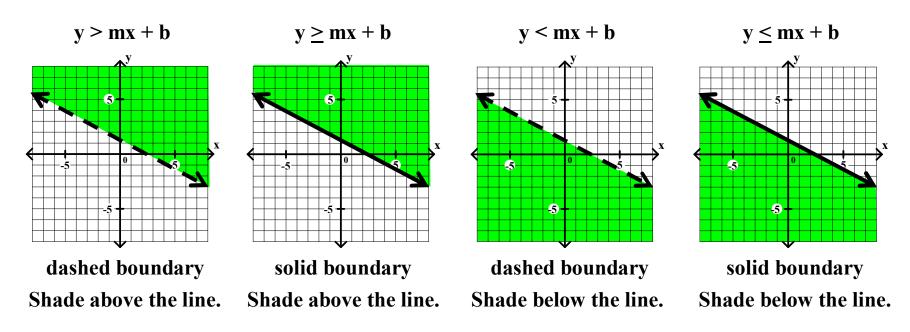
Given any oblique line y = mx + b, there are 4 related inequalities.



Given any oblique line y = mx + b, there are 4 related inequalities.



Given any oblique line y = mx + b, there are 4 related inequalities.



Given any horizontal line y = k,

Given any horizontal line y = k, there are 4 related inequalities.

y > k

$$y > k$$
  $y \ge k$ 

$$y > k$$
  $y \ge k$   $y < k$ 

$$y \ge k$$

$$y \le k$$

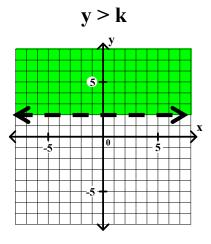
Given any horizontal line y = k, there are 4 related inequalities. Their graphs look like this.

$$y \ge k$$

$$y \le k$$

Given any horizontal line y = k, there are 4 related inequalities.

Their graphs look like this.



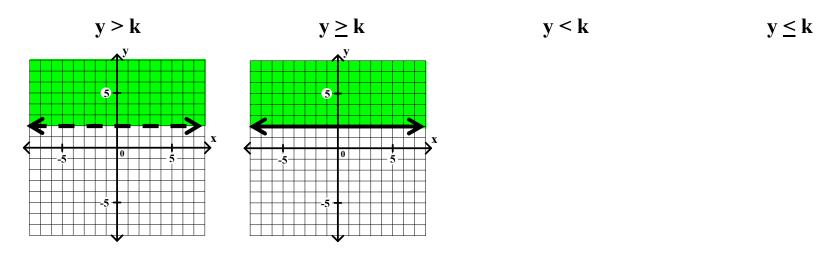
$$y \ge k$$

$$y \le k$$

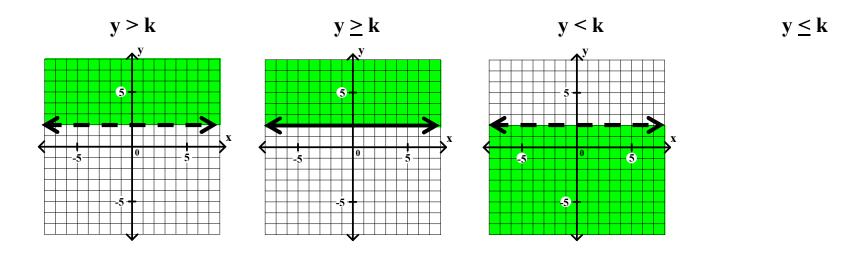
$$y \le k$$

Given any horizontal line y = k, there are 4 related inequalities.

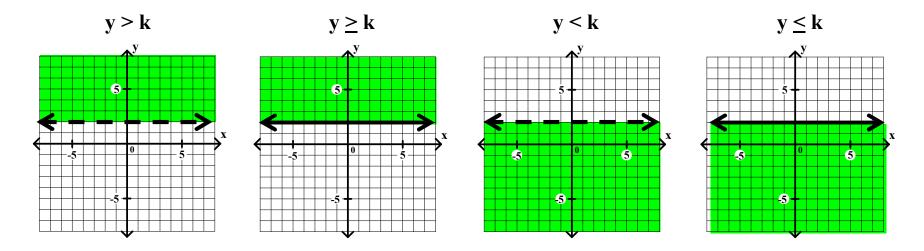
Their graphs look like this.



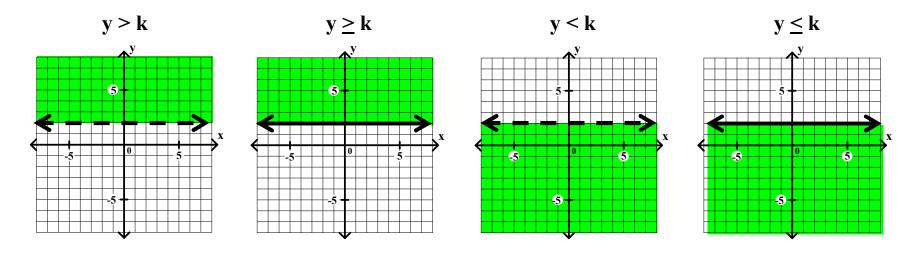
Given any horizontal line y = k, there are 4 related inequalities. Their graphs look like this.



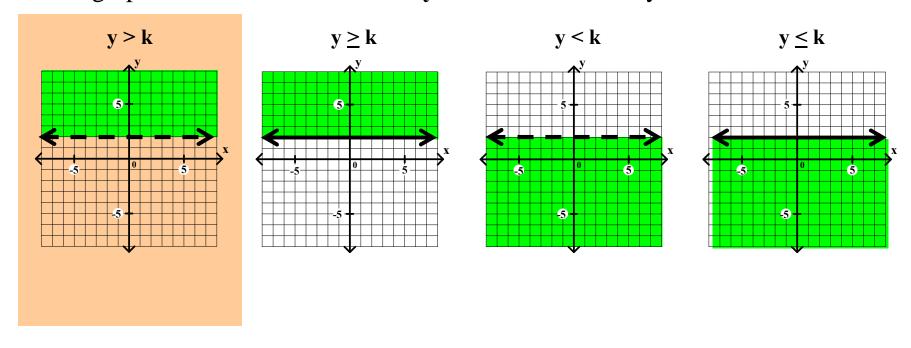
Given any horizontal line y = k, there are 4 related inequalities. Their graphs look like this.



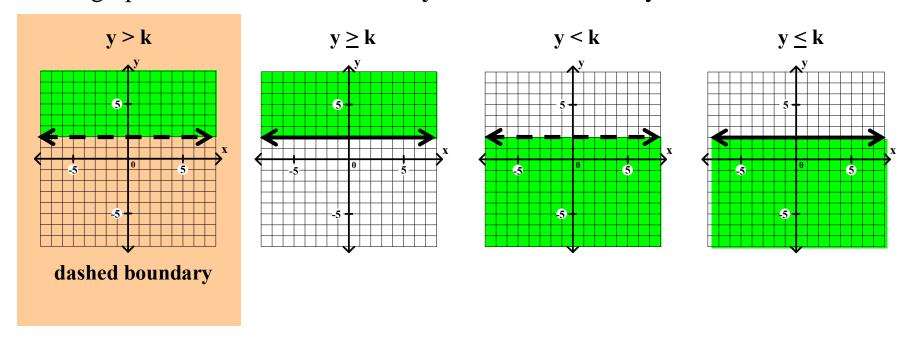
Given any horizontal line y = k, there are 4 related inequalities.



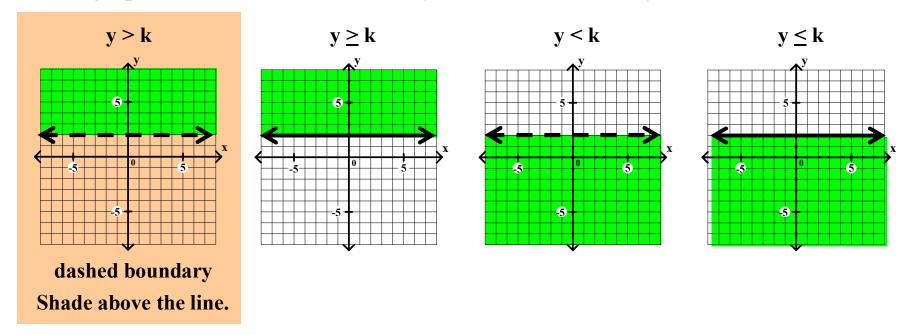
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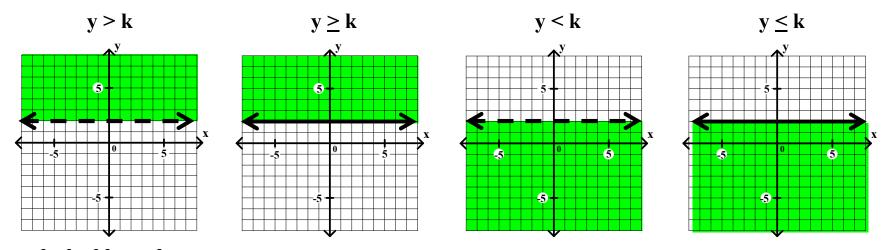


Given any horizontal line y = k, there are 4 related inequalities.



Given any horizontal line y = k, there are 4 related inequalities.

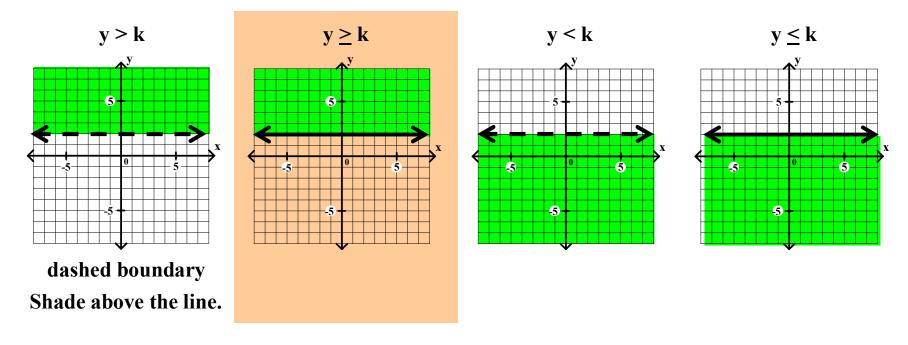
Their graphs look like this. The line y = k is the  $\pm$ boundary lineøin each case.



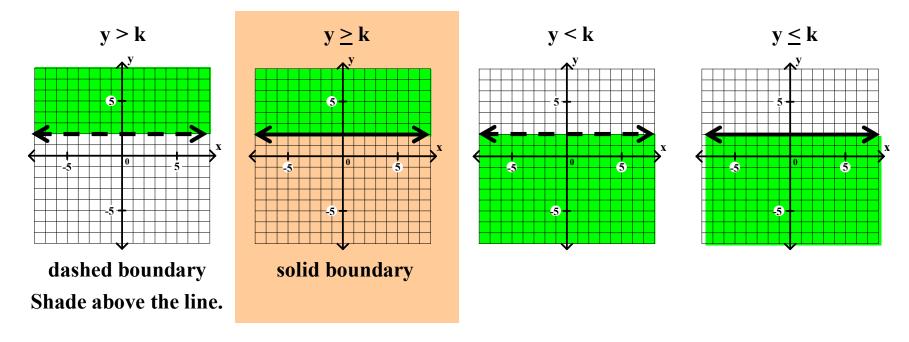
dashed boundary

Shade above the line.

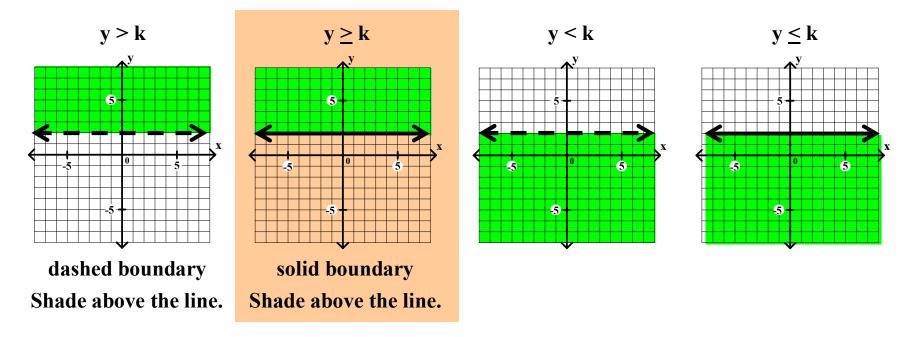
Given any horizontal line y = k, there are 4 related inequalities.



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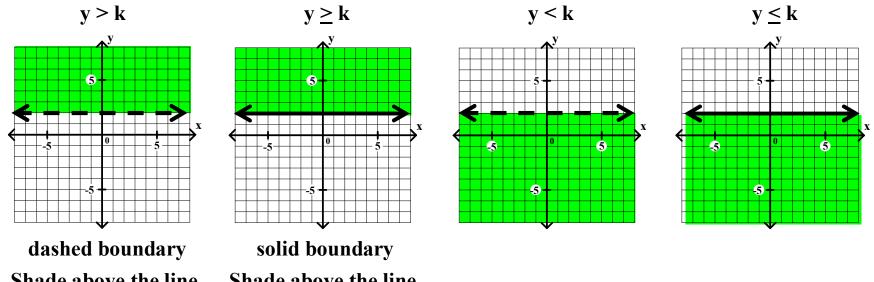


Given any horizontal line y = k, there are 4 related inequalities.



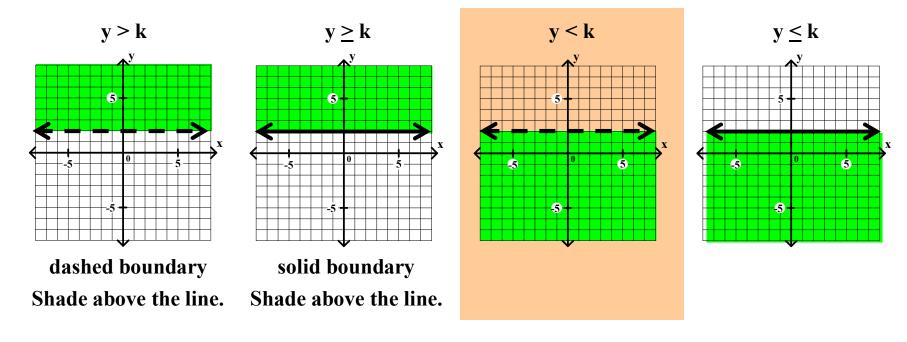
Given any horizontal line y = k, there are 4 related inequalities.

Their graphs look like this. The line y = k is the  $\pm$ boundary line  $\emptyset$  in each case.

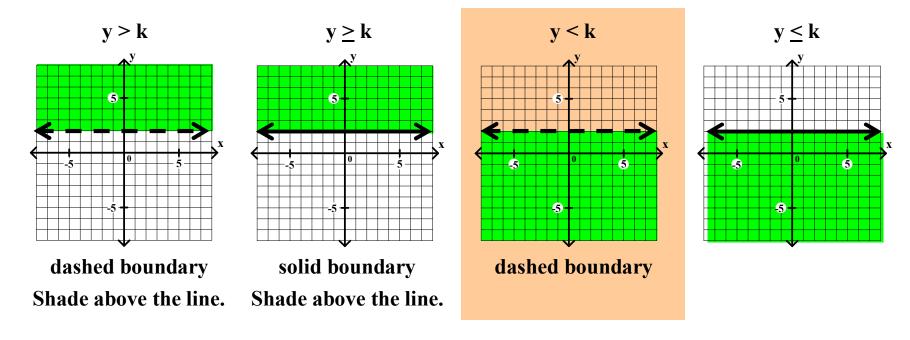


Shade above the line. Shade above the line.

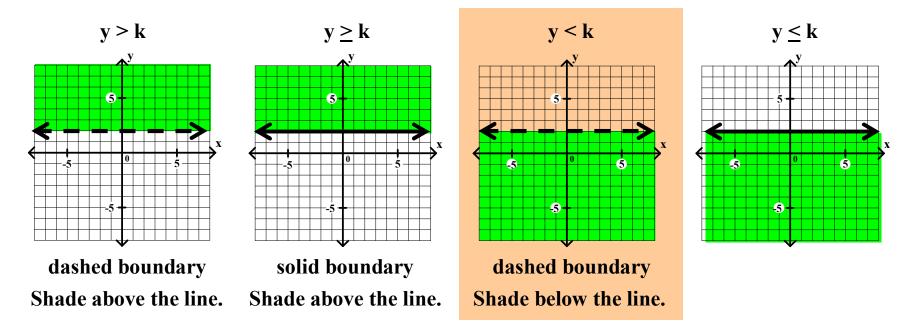
Given any horizontal line y = k, there are 4 related inequalities.



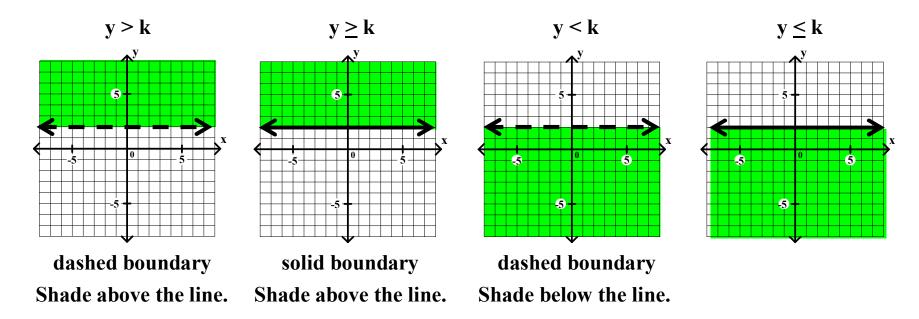
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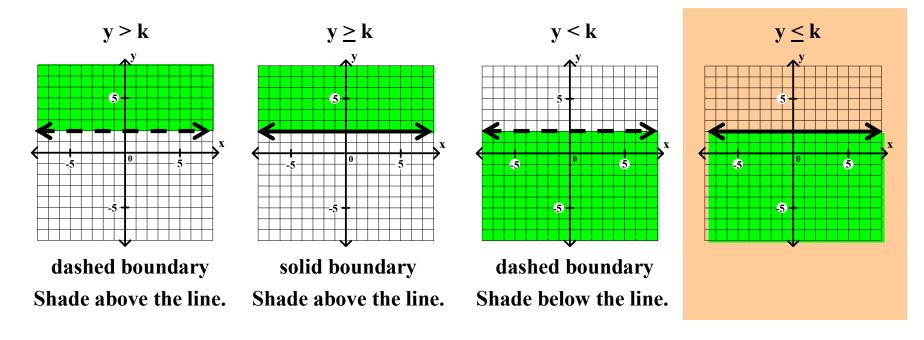
Given any horizontal line y = k, there are 4 related inequalities.



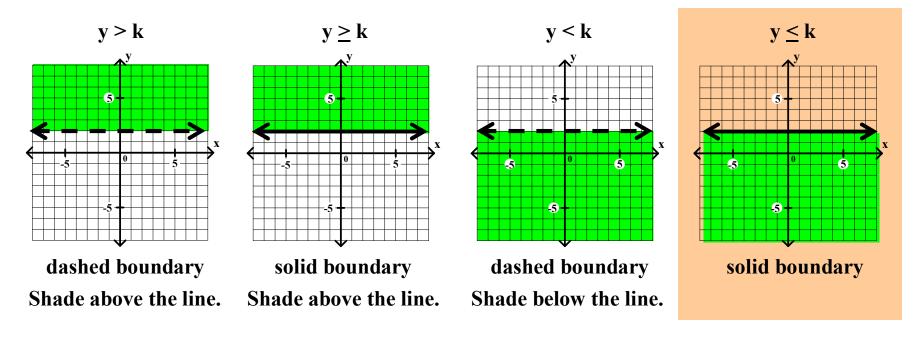
Given any horizontal line y = k, there are 4 related inequalities.



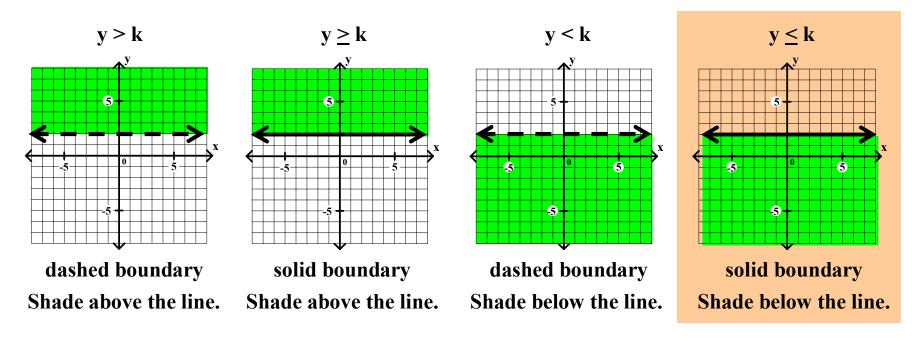
Given any horizontal line y = k, there are 4 related inequalities.



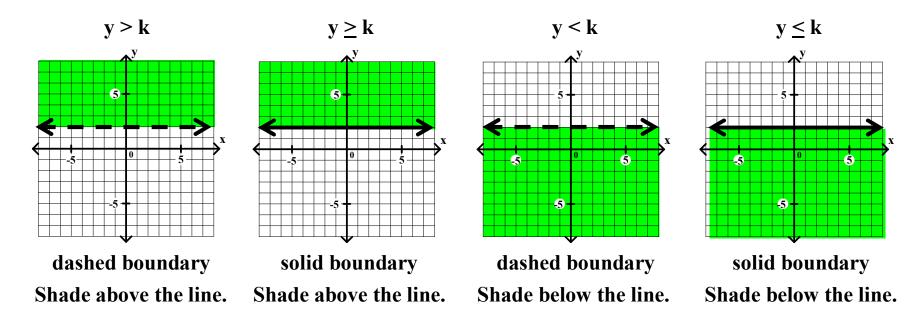
Given any horizontal line y = k, there are 4 related inequalities.



Given any horizontal line y = k, there are 4 related inequalities.



Given any horizontal line y = k, there are 4 related inequalities.



Given any vertical line x = k,

Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.

Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.

x > k

Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.

$$x > k$$
  $x \ge k$ 

Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.

x > k  $x \le k$   $x \le k$ 

Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.

x > k

 $x \ge k$ 

x < k

 $x \le k$ 

Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.

Their graphs look like this.

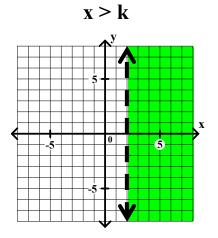
$$x \ge k$$

$$x \le k$$

$$x \le k$$

Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.

Their graphs look like this.

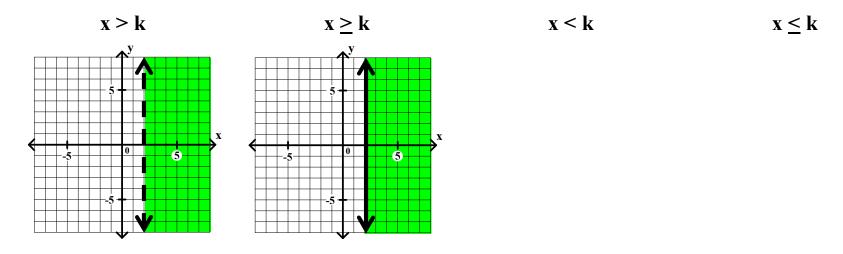


$$x \ge k$$
  $x < k$ 

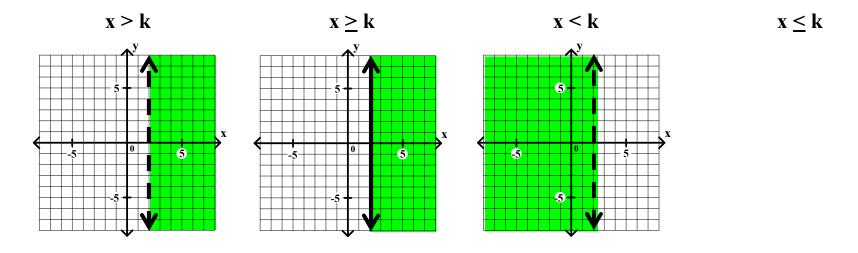
 $x \le k$ 

Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.

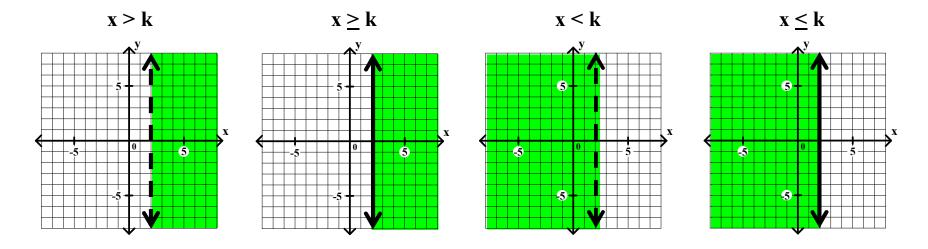
Their graphs look like this.



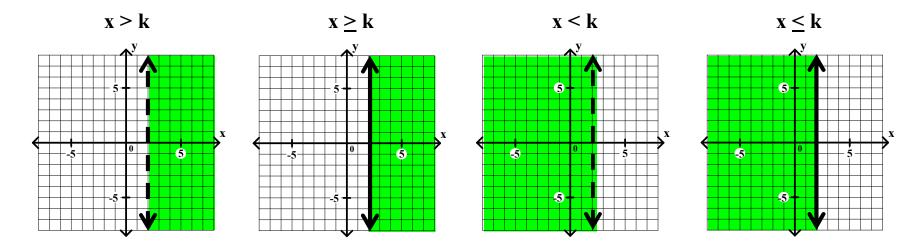
Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities. Their graphs look like this.



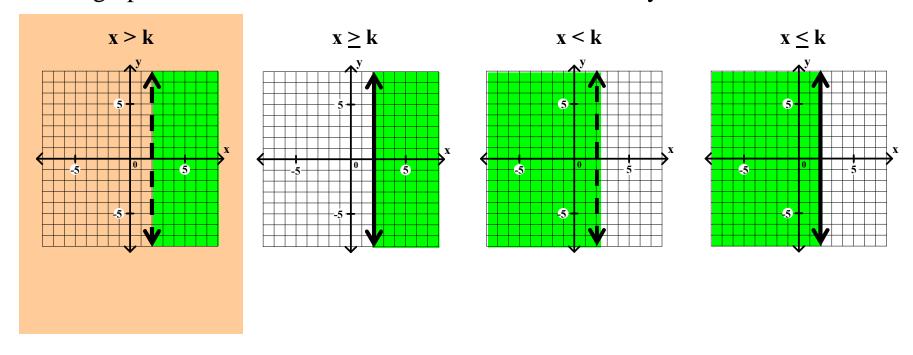
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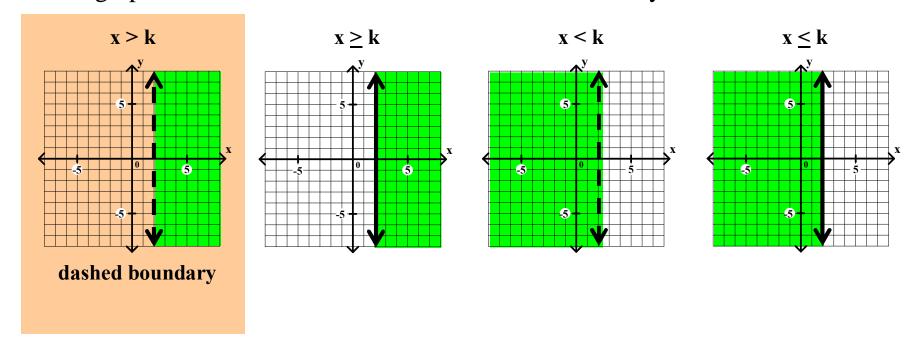
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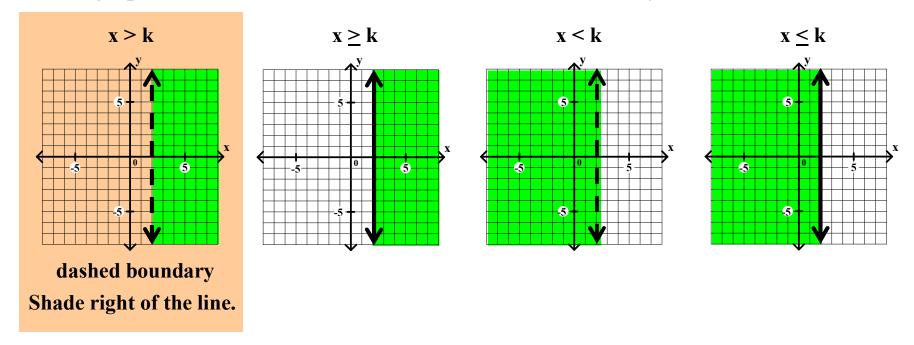
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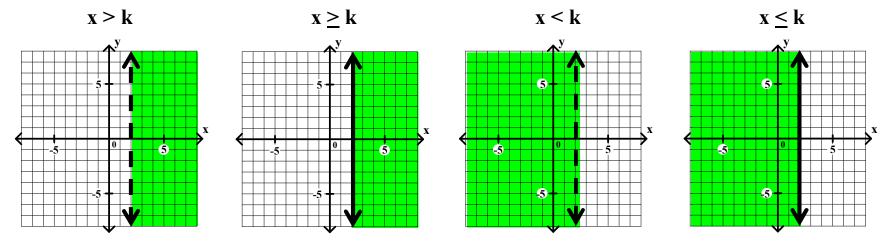


Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.



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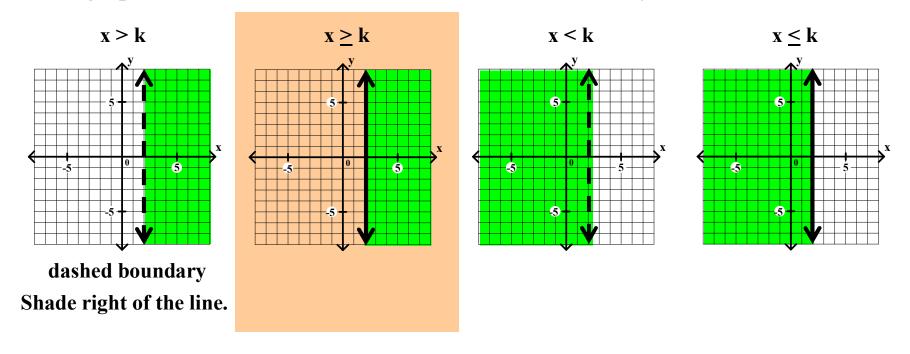
Their graphs look like this. The line  $\mathbf{x} = \mathbf{k}$  is the  $\pm$ boundary lineøin each case.



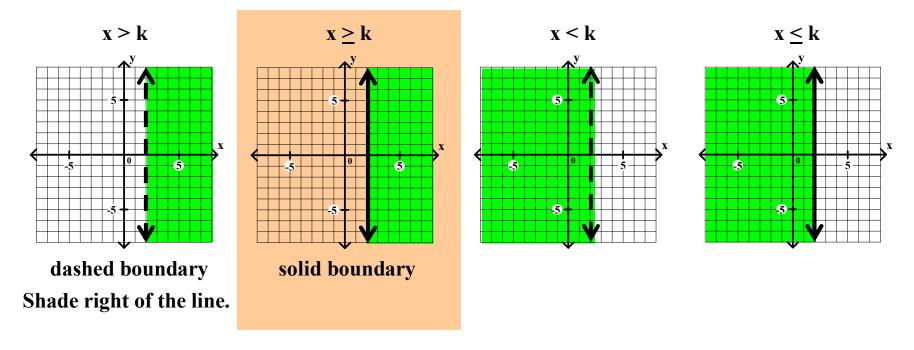
dashed boundary

Shade right of the line.

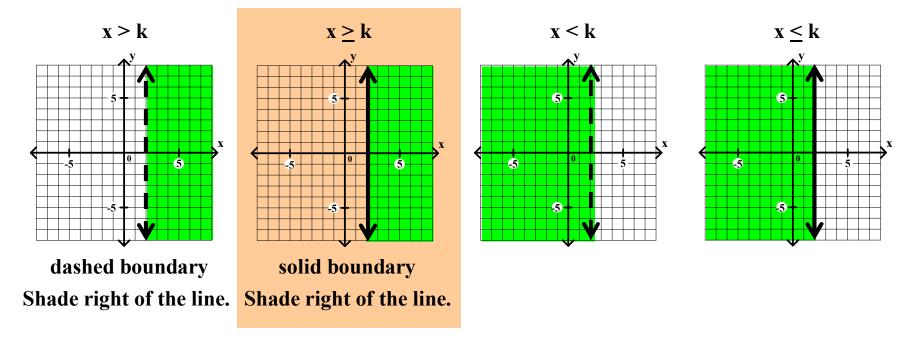
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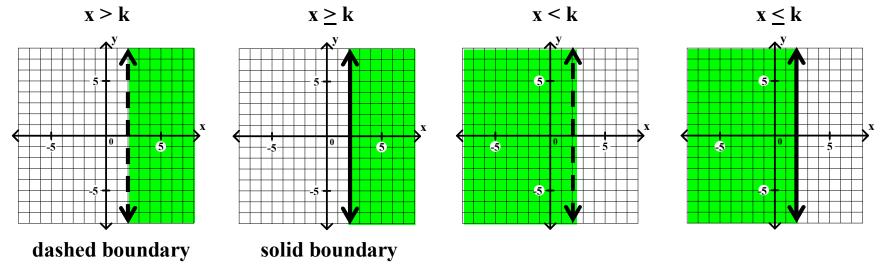


Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.



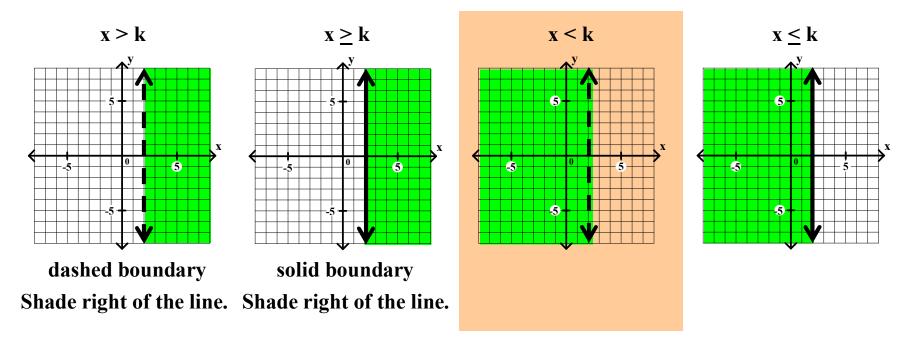
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Their graphs look like this. The line  $\mathbf{x} = \mathbf{k}$  is the  $\pm$ boundary lineøin each case.

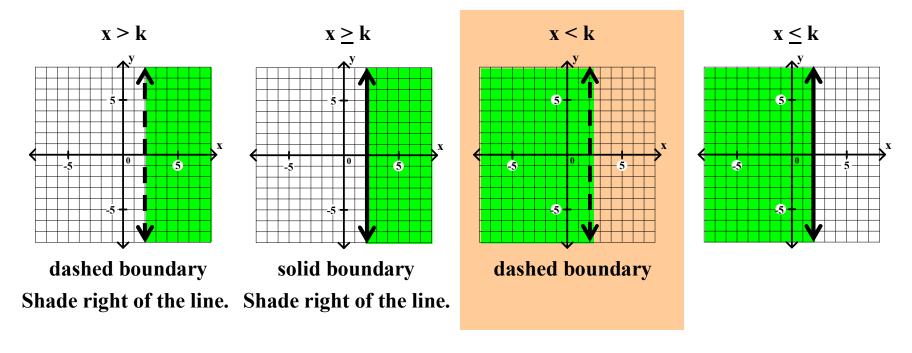


Shade right of the line. Shade right of the line.

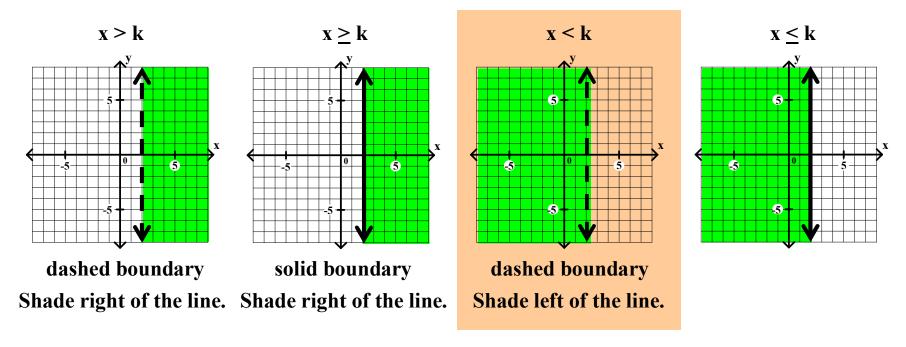
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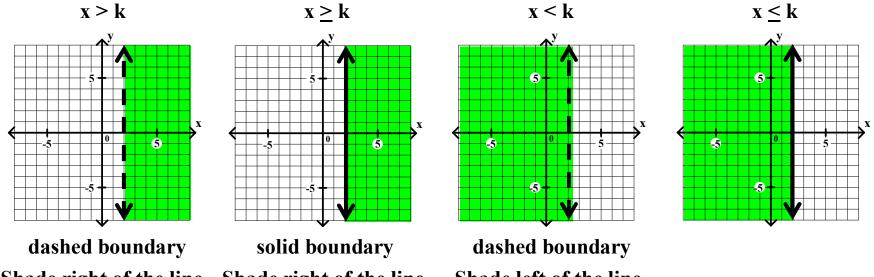


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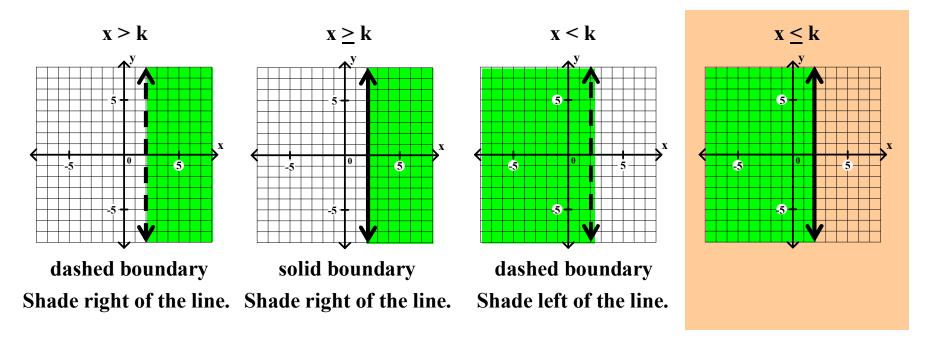
Their graphs look like this. The line  $\mathbf{x} = \mathbf{k}$  is the  $\pm$ boundary lineøin each case.



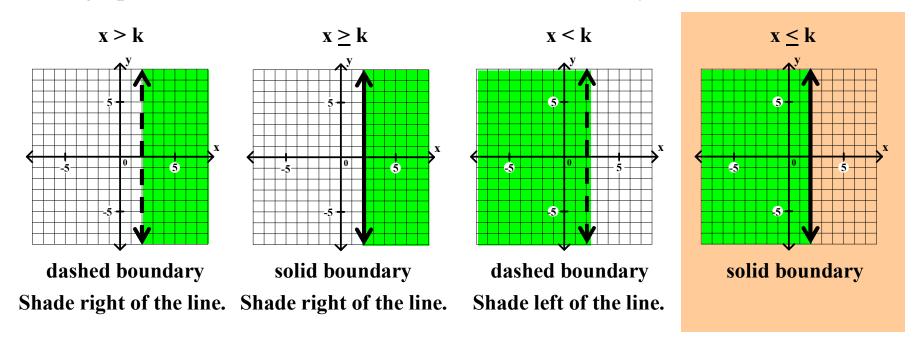
Shade right of the line. Shade right of the line.

Shade left of the line.

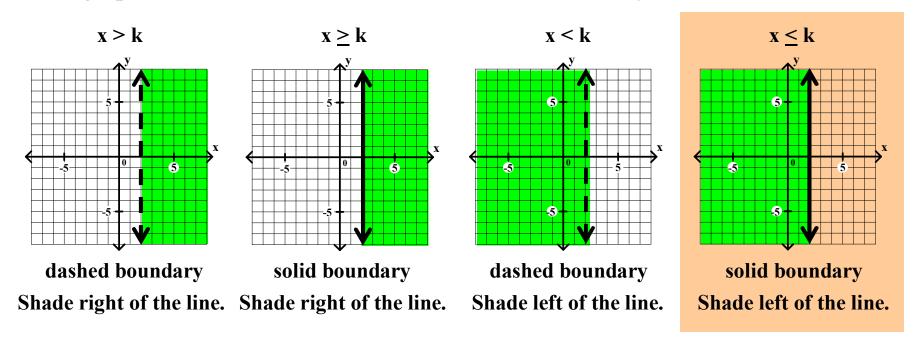
Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.



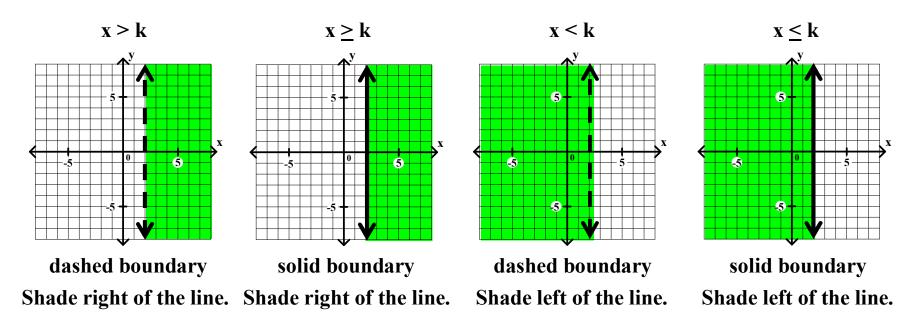
Given any vertical line  $\mathbf{x} = \mathbf{k}$ , there are 4 related inequalities.



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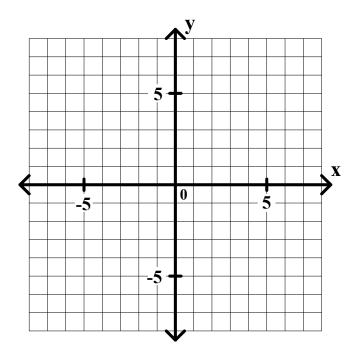


# Algebra I Class Worksheet #3 Unit 7

# Algebra I Class Worksheet #3 Unit 7

Graph each of the following.

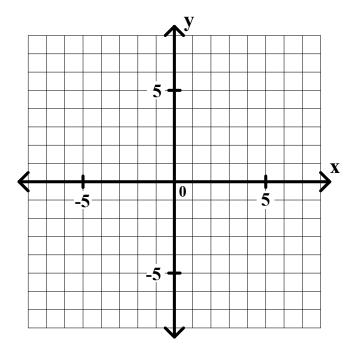
1. 
$$y < -2$$



### Algebra I Class Worksheet #3 Unit 7

Graph each of the following.

1. 
$$y < -2$$

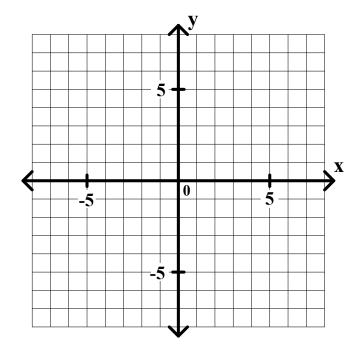


Step 1: Graph several points on the boundary line.

Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

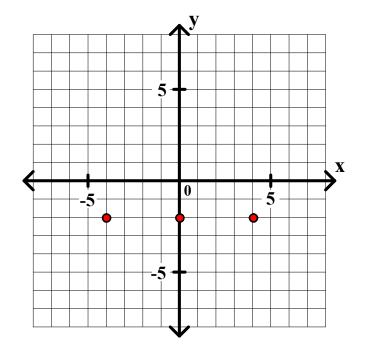


Step 1: Graph several points on the boundary line.

Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

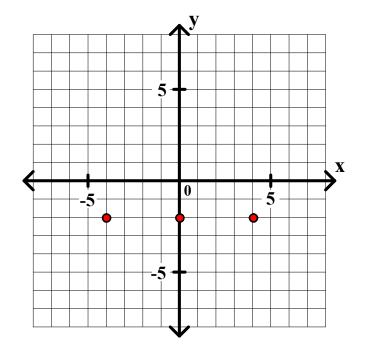


Step 1: Graph several points on the boundary line.

Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

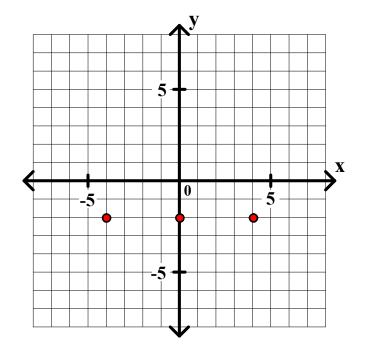


Step 1: Graph several points on the boundary line.

Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.



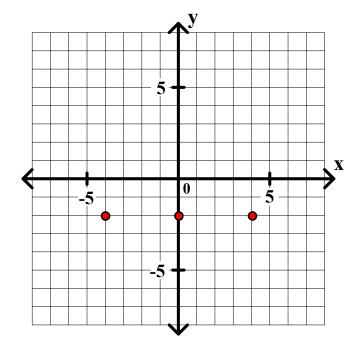
Step 1: Graph several points on the boundary line.

Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.



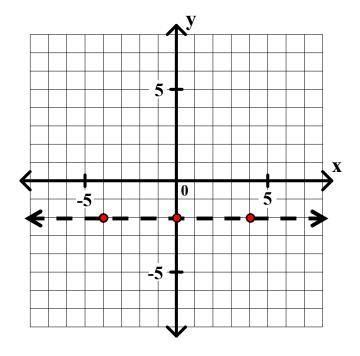
Step 1: Graph several points on the boundary line.

Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.



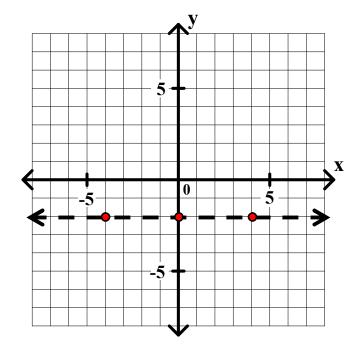
Step 1: Graph several points on the boundary line.

Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.



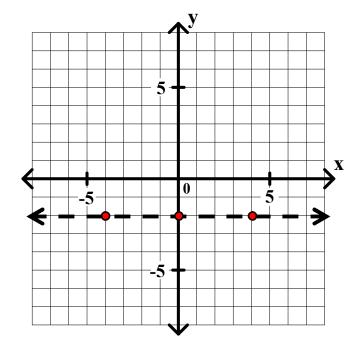
Step 1: Graph several points on the boundary line.

Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

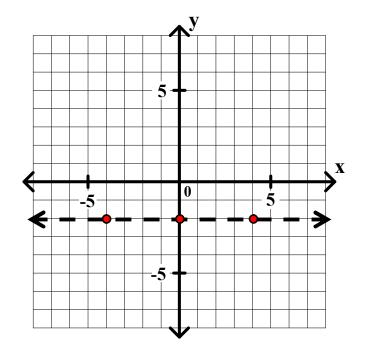
Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.

Shade below the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

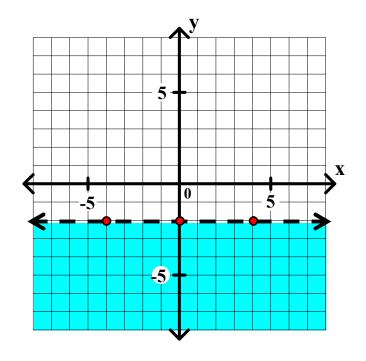
Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.

Shade below the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

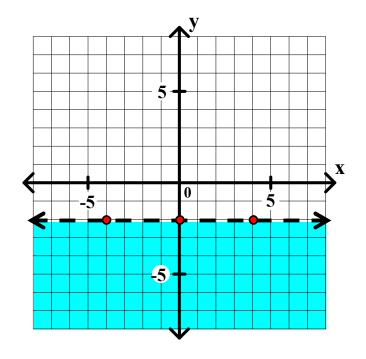
Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.

Shade below the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

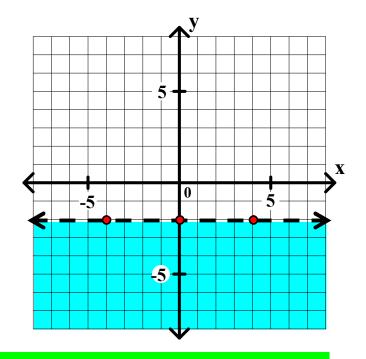
Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.

Shade below the line.



Every point in the shaded region has a y-coordinate less than 2!!

Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

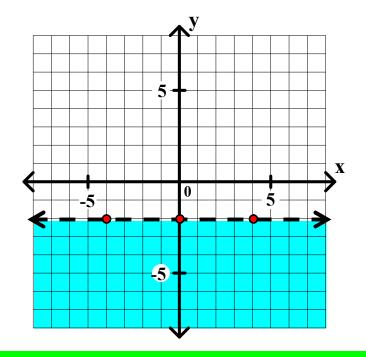
Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.

Shade below the line.



Every point in the shaded region has a y-coordinate less than 2!! Right?

Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

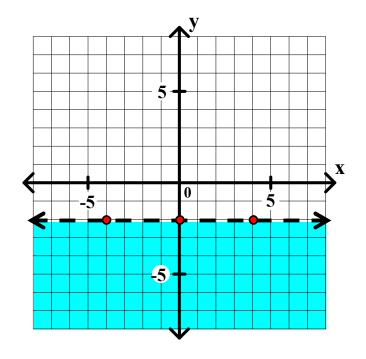
Graph each of the following.

1. 
$$y < -2$$

The boundary line is the horizontal line y = -2.

The boundary line is a dashed line.

Shade below the line.

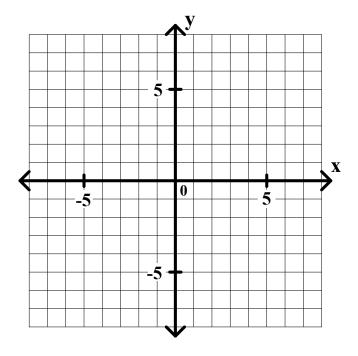


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$2. \quad y \ge 4$$

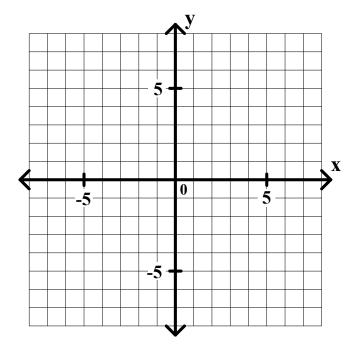


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$2. \quad y \ge 4$$



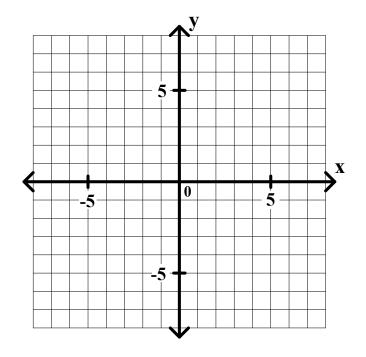
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.



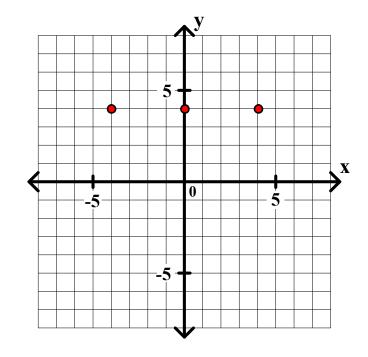
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.



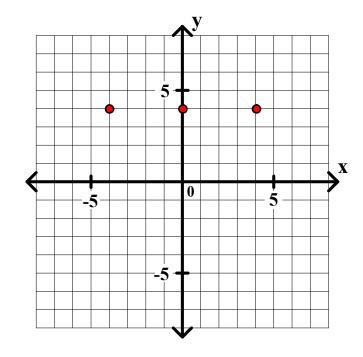
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.



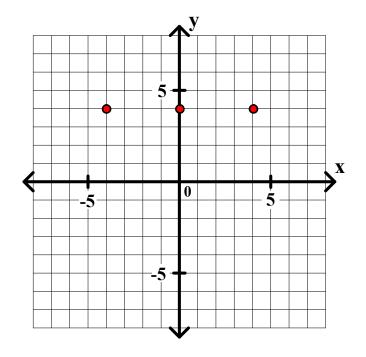
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.



Step 1: Graph several points on the boundary line.

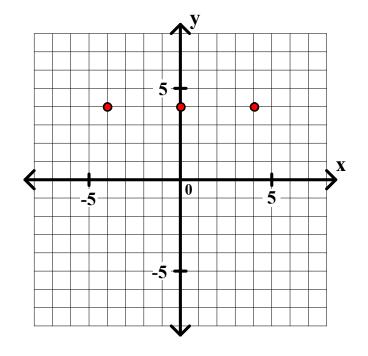
Step 2: Draw the boundary line.

Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

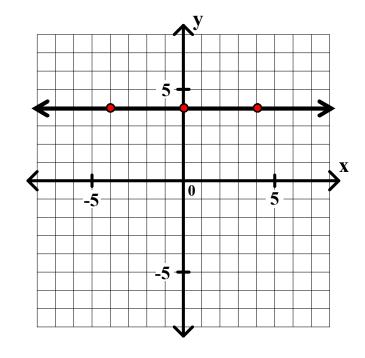
**Step 2: Draw the boundary line.** 

Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

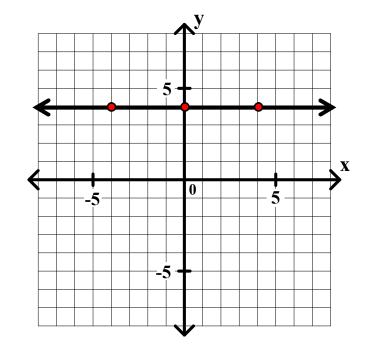
**Step 2: Draw the boundary line.** 

Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

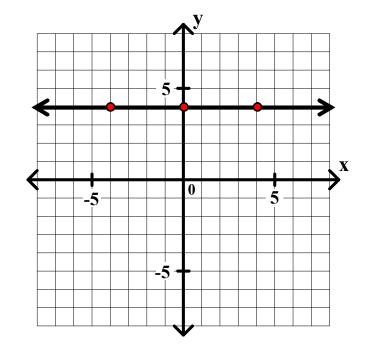
**Step 2: Draw the boundary line.** 

Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

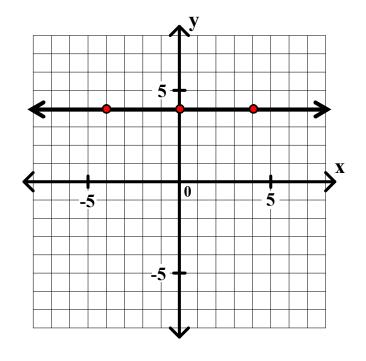
Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

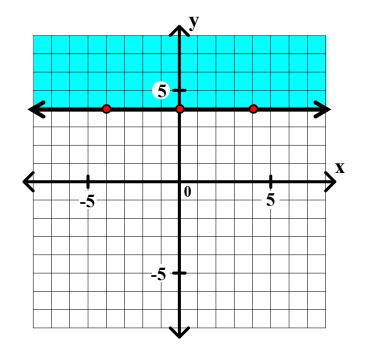
Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

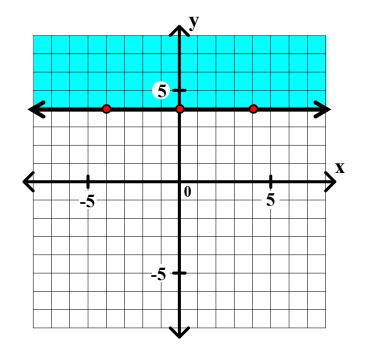
Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

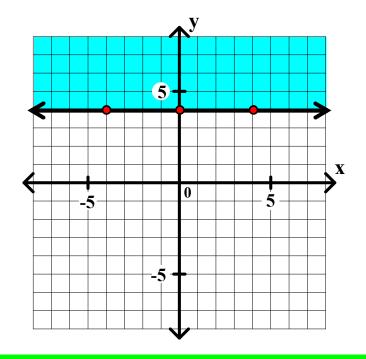
Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.

Shade above the line.



Every point in the graphed region has a y-coordinate greater than or equal to 4!!

Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

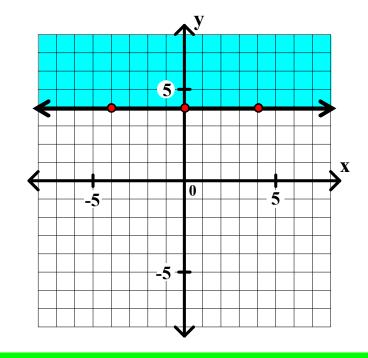
Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.

Shade above the line.



Every point in the graphed region has a y-coordinate greater than or equal to 4!! Right?

Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

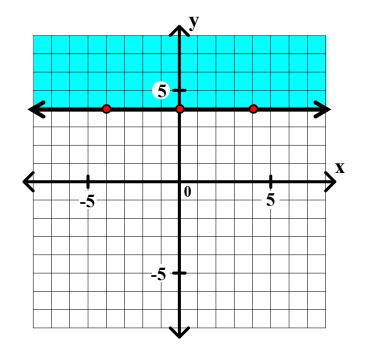
Graph each of the following.

$$2. \quad y \ge 4$$

The boundary line is the horizontal line y = 4.

The boundary line is a solid line.

Shade above the line.

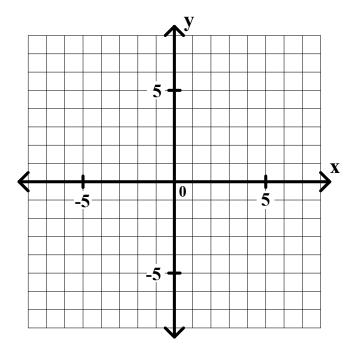


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$

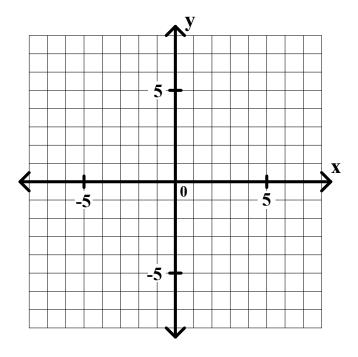


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$



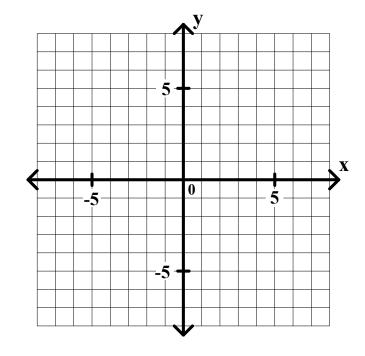
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.



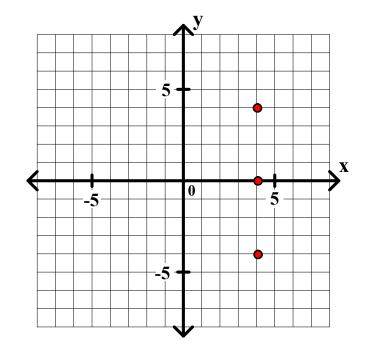
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.



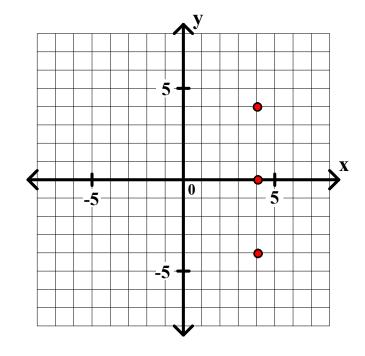
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.



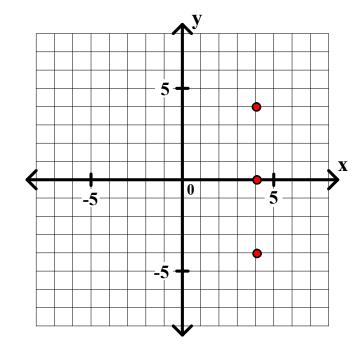
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.



Step 1: Graph several points on the boundary line.

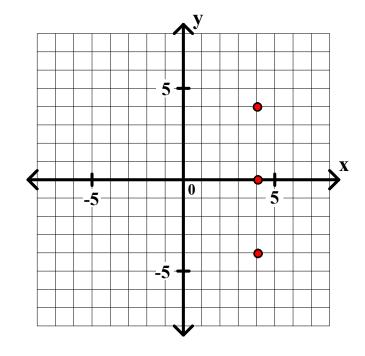
**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

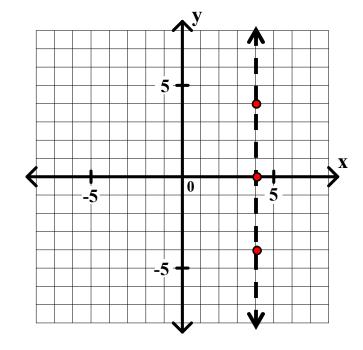
**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

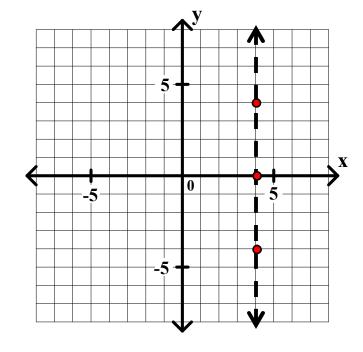
**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

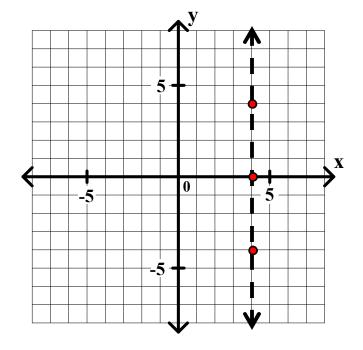
**Step 2: Draw the boundary line.** 

Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

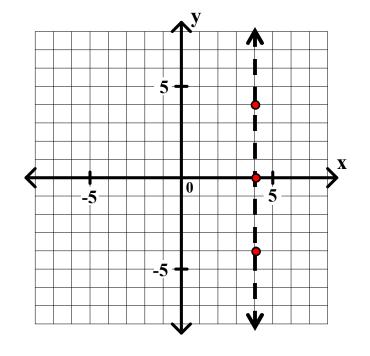
Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.

Shade to the left of the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

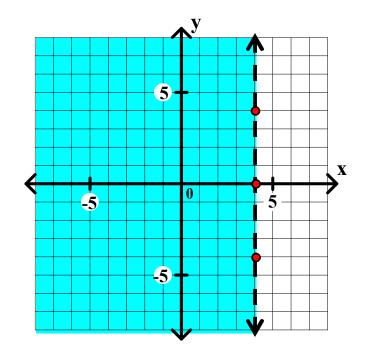
Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.

Shade to the left of the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

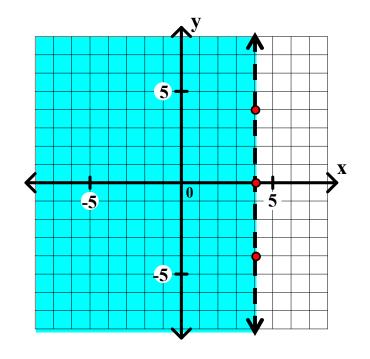
Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.

Shade to the left of the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

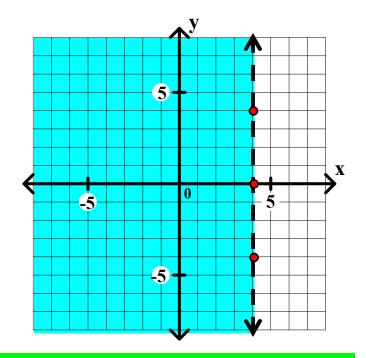
Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.

Shade to the left of the line.



Every point in the graphed region has an x-coordinate less than 4!!

Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

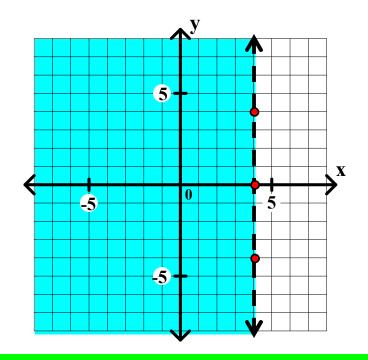
Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.

Shade to the left of the line.



Every point in the graphed region has an x-coordinate less than 4!! Right?

Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

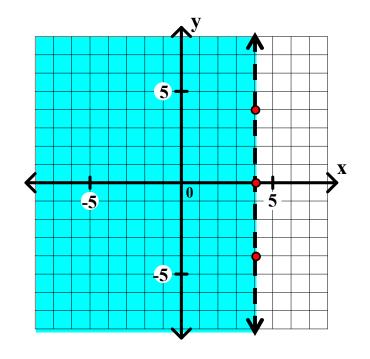
Graph each of the following.

3. 
$$x < 4$$

The boundary line is the vertical line x = 4.

The boundary line is a dashed line.

Shade to the left of the line.

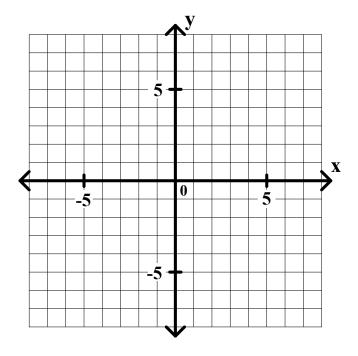


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

4. 
$$x \ge -2$$

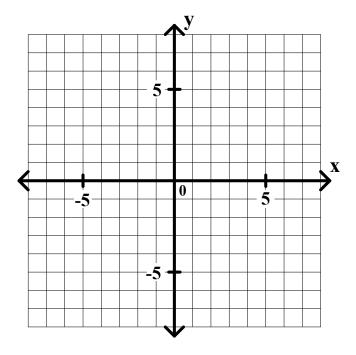


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

4. 
$$x \ge -2$$



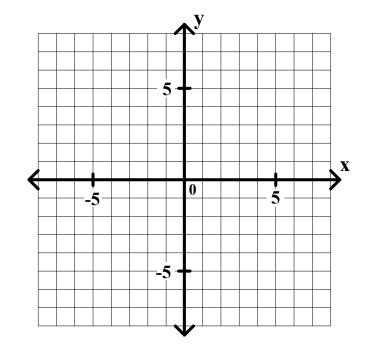
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

$$4. \quad x \ge -2$$

The boundary line is the vertical line x = -2.



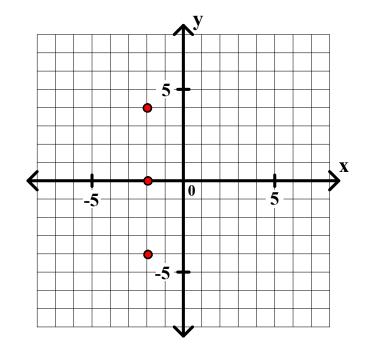
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$4. \quad x \ge -2$$

The boundary line is the vertical line x = -2.



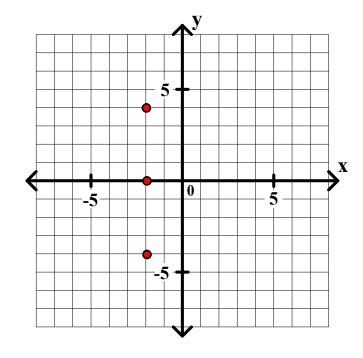
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$4. \quad x \ge -2$$

The boundary line is the vertical line x = -2.



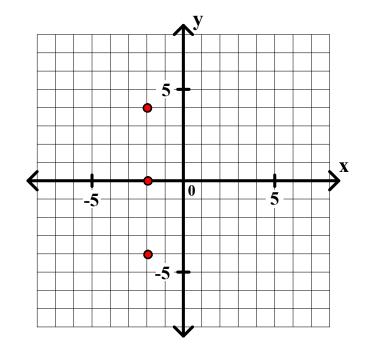
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

$$4. \quad x \ge -2$$

The boundary line is the vertical line x = -2.



Step 1: Graph several points on the boundary line.

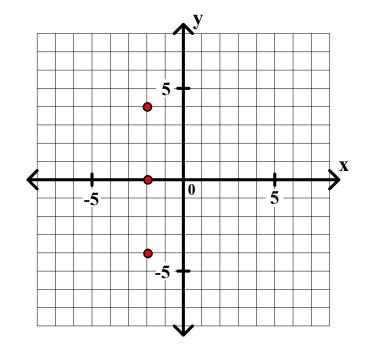
Step 2: Draw the boundary line.

Graph each of the following.

4. 
$$x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

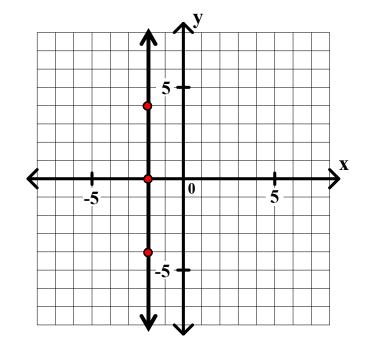
**Step 2: Draw the boundary line.** 

Graph each of the following.

4. 
$$x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

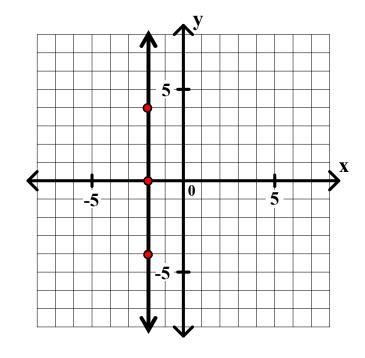
**Step 2: Draw the boundary line.** 

Graph each of the following.

4. 
$$x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

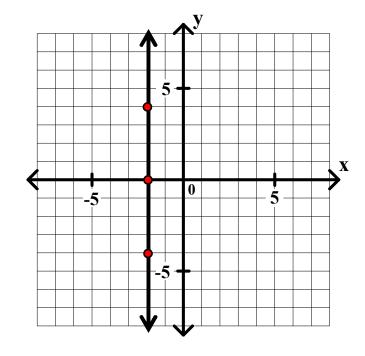
**Step 2: Draw the boundary line.** 

Graph each of the following.

4. 
$$x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

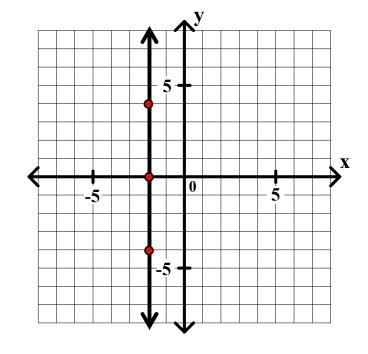
Graph each of the following.

4. 
$$x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.

Shade to the right of the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

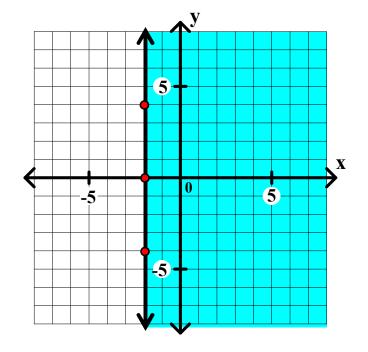
Graph each of the following.

4. 
$$x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.

Shade to the right of the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

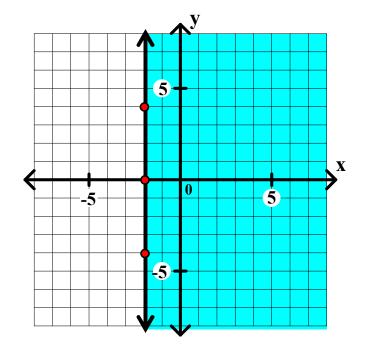
Graph each of the following.

$$4. \quad x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.

Shade to the right of the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

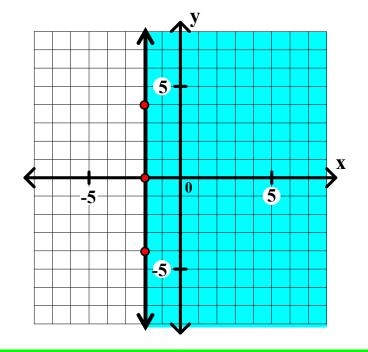
Graph each of the following.

$$4. \quad x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.

Shade to the right of the line.



Every point in the graphed region has an x-coordinate greater than or equal to -2!!

Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

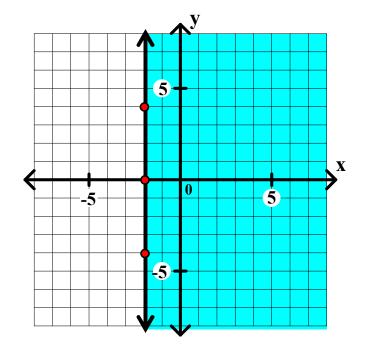
Graph each of the following.

$$4. \quad x \ge -2$$

The boundary line is the vertical line x = -2.

The boundary line is a solid line.

Shade to the right of the line.

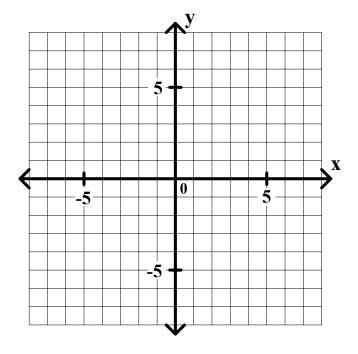


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

5. 
$$y > x + 1$$

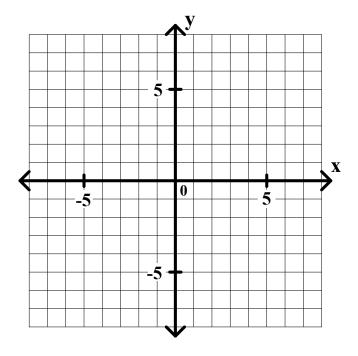


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

5. 
$$y > x + 1$$



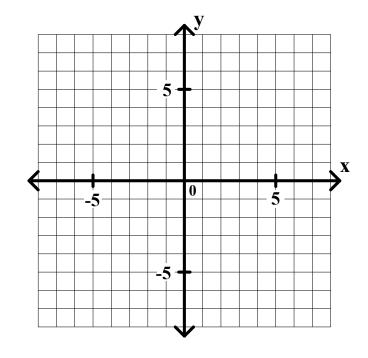
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

5. 
$$y > x + 1$$

The boundary line is the oblique line y = x + 1.



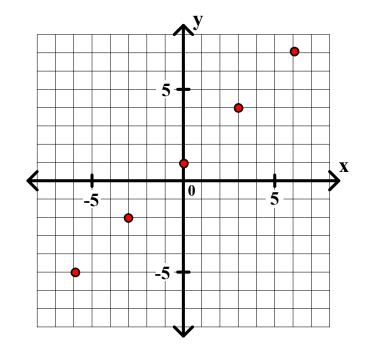
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

5. 
$$y > x + 1$$

The boundary line is the oblique line y = x + 1.



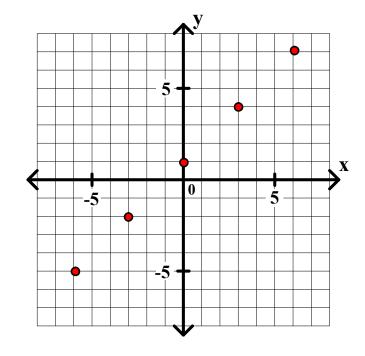
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

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The boundary line is the oblique line y = x + 1.



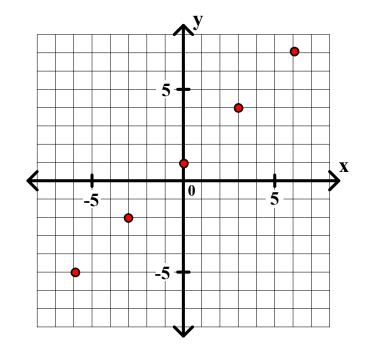
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

5. 
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The boundary line is the oblique line y = x + 1.



Step 1: Graph several points on the boundary line.

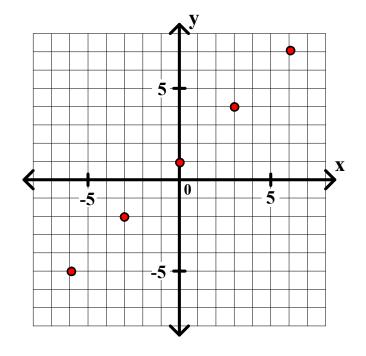
**Step 2: Draw the boundary line.** 

Graph each of the following.

5. 
$$y > x + 1$$

The boundary line is the oblique line y = x + 1.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

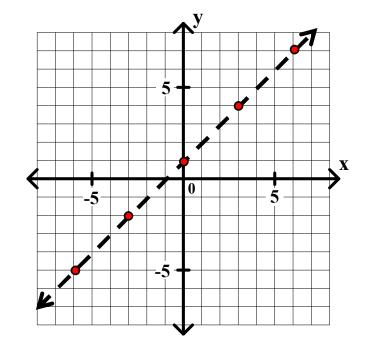
**Step 2: Draw the boundary line.** 

Graph each of the following.

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$$y > x + 1$$

The boundary line is the oblique line y = x + 1.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

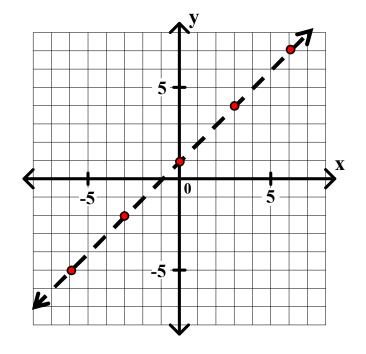
**Step 2: Draw the boundary line.** 

Graph each of the following.

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$$y > x + 1$$

The boundary line is the oblique line y = x + 1.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

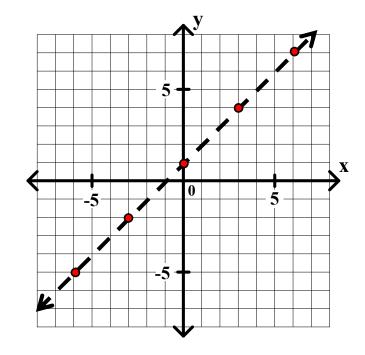
Step 2: Draw the boundary line.

Graph each of the following.

5. 
$$y > x + 1$$

The boundary line is the oblique line y = x + 1.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

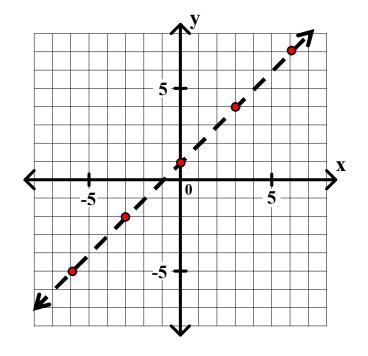
Graph each of the following.

5. 
$$y > x + 1$$

The boundary line is the oblique line y = x + 1.

The boundary line is a dashed line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

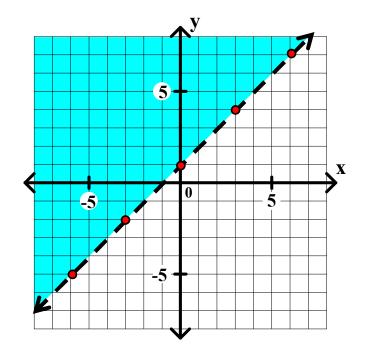
Graph each of the following.

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$$y > x + 1$$

The boundary line is the oblique line y = x + 1.

The boundary line is a dashed line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

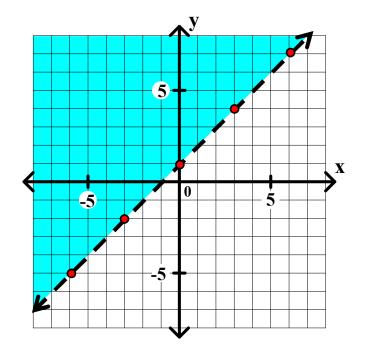
Graph each of the following.

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The boundary line is the oblique line y = x + 1.

The boundary line is a dashed line.

Shade above the line.

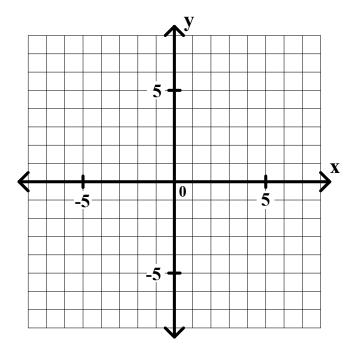


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$6. \quad y \leq 2x - 1$$

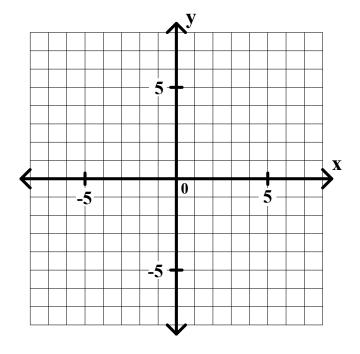


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$6. \quad y \leq 2x - 1$$



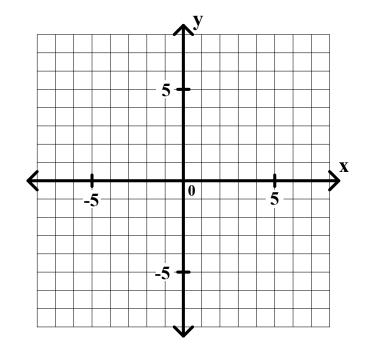
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$6. \quad y \leq 2x - 1$$

The boundary line is the oblique line y = 2x - 1.



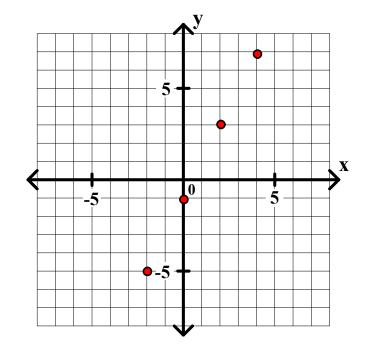
Step 1: Graph several points on the boundary line.

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The boundary line is the oblique line y = 2x - 1.



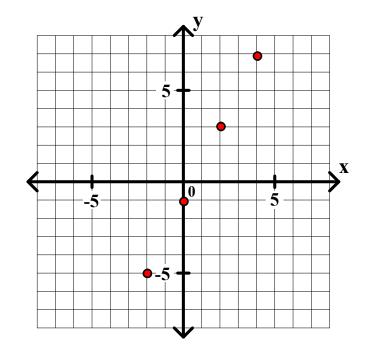
Step 1: Graph several points on the boundary line.

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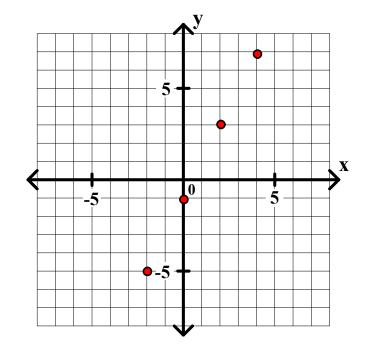
Step 1: Graph several points on the boundary line.

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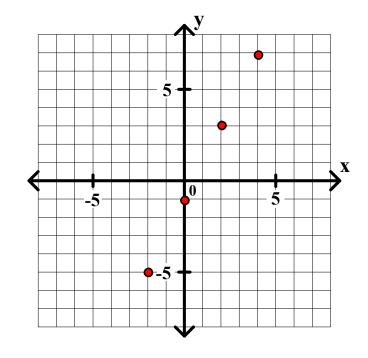
Step 2: Draw the boundary line.

Graph each of the following.

$$6. \quad y \leq 2x - 1$$

The boundary line is the oblique line y = 2x - 1.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

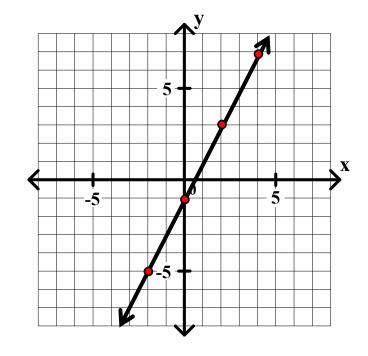
Step 2: Draw the boundary line.

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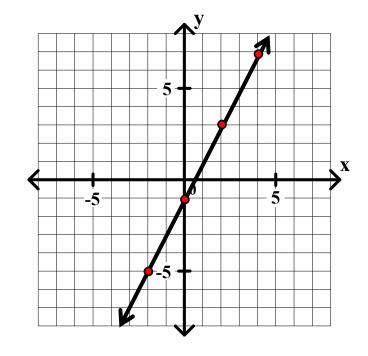
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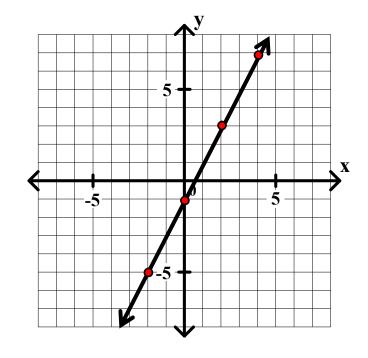
**Step 2: Draw the boundary line.** 

Graph each of the following.

$$6. \quad y \leq 2x - 1$$

The boundary line is the oblique line y = 2x - 1.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

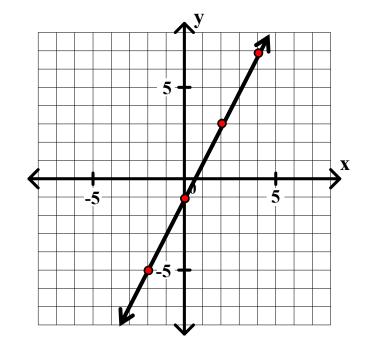
Graph each of the following.

$$6. \quad y \leq 2x - 1$$

The boundary line is the oblique line y = 2x - 1.

The boundary line is a solid line.

Shade below the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

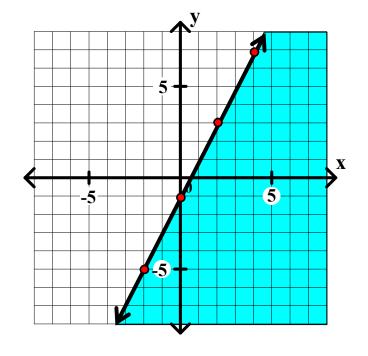
Graph each of the following.

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The boundary line is the oblique line y = 2x - 1.

The boundary line is a solid line.

Shade below the line.



Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

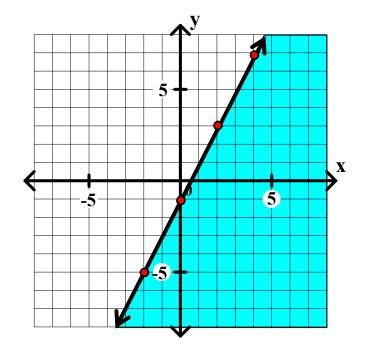
Graph each of the following.

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The boundary line is the oblique line y = 2x - 1.

The boundary line is a solid line.

Shade below the line.

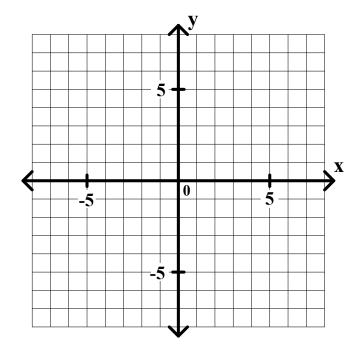


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

7. 
$$y < -2x + 3$$

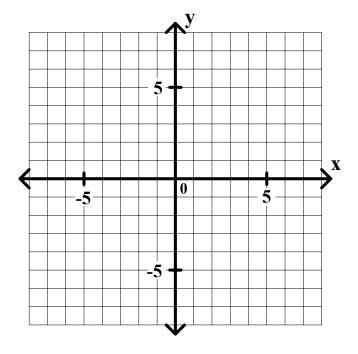


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

7. 
$$y < -2x + 3$$



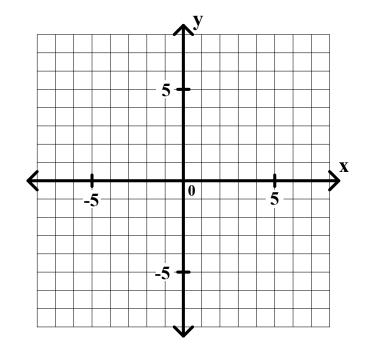
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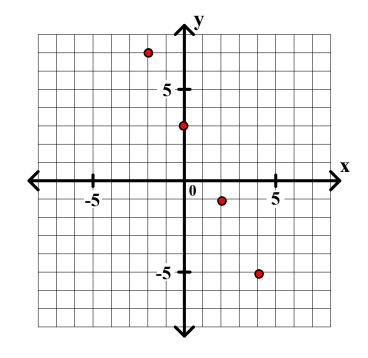
Step 1: Graph several points on the boundary line.

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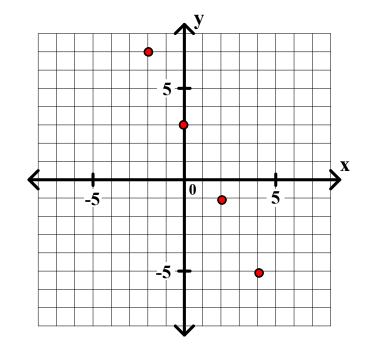
Step 1: Graph several points on the boundary line.

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The boundary line is the oblique line y = -2x + 3.



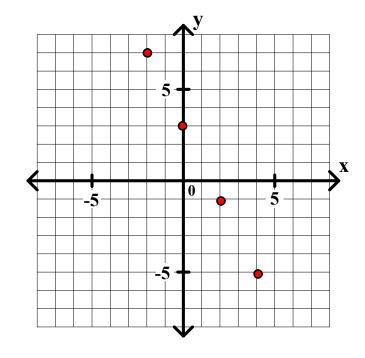
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

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$$y < -2x + 3$$

The boundary line is the oblique line y = -2x + 3.



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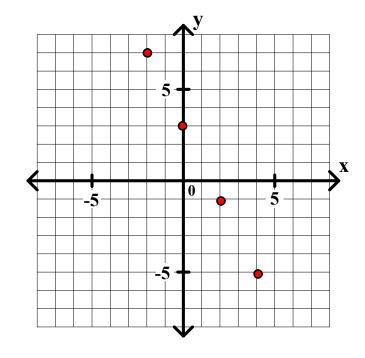
Step 2: Draw the boundary line.

Graph each of the following.

7. 
$$y < -2x + 3$$

The boundary line is the oblique line y = -2x + 3.

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

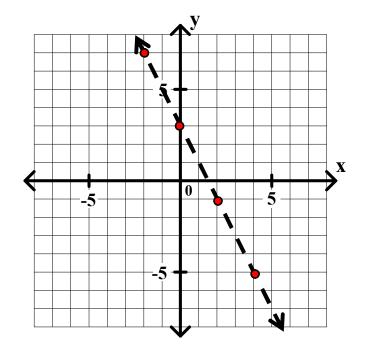
**Step 2: Draw the boundary line.** 

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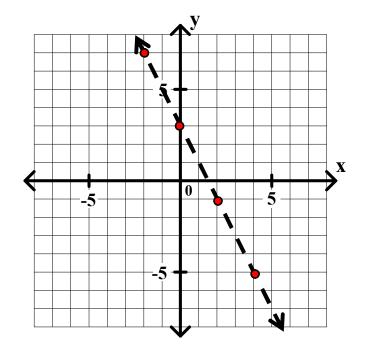
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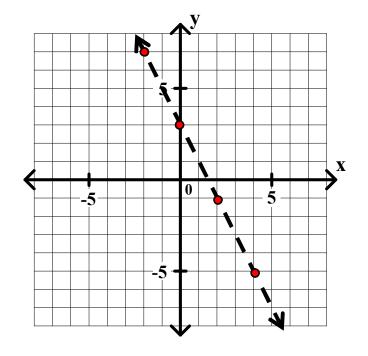
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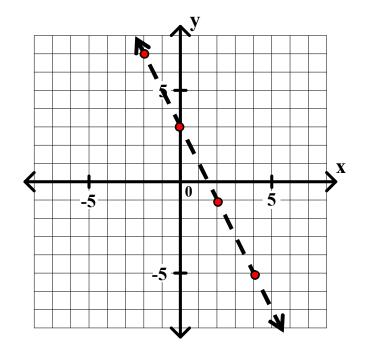
Graph each of the following.

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$$y < -2x + 3$$

The boundary line is the oblique line y = -2x + 3.

The boundary line is a dashed line.

Shade below the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

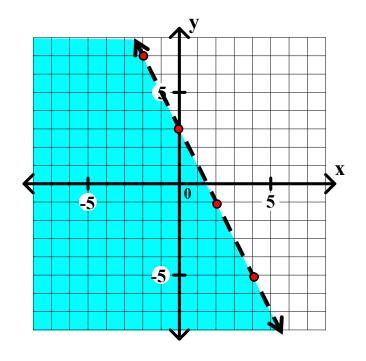
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The boundary line is a dashed line.

Shade below the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

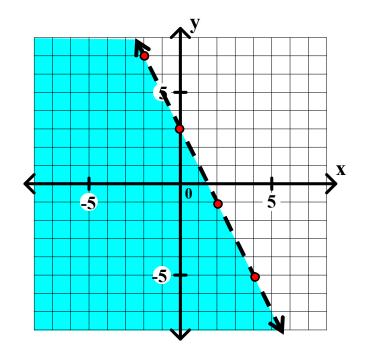
Graph each of the following.

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$$y < -2x + 3$$

The boundary line is the oblique line y = -2x + 3.

The boundary line is a dashed line.

Shade below the line.

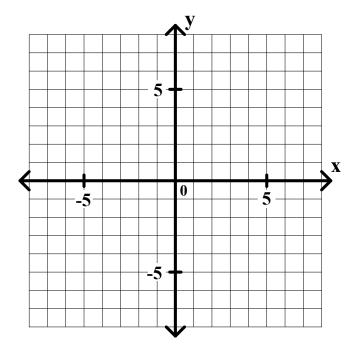


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

8. 
$$y \ge -x - 3$$

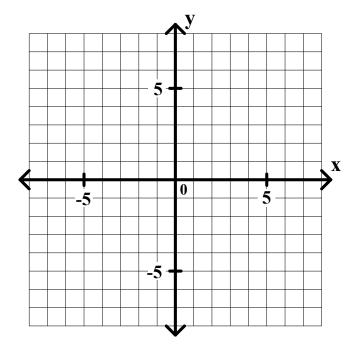


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

8. 
$$y \ge -x - 3$$



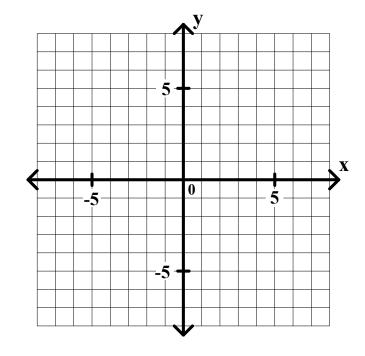
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$8. \quad y \ge -x - 3$$

The boundary line is the oblique line y = -x - 3.



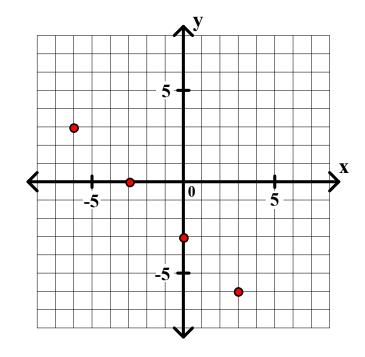
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

$$8. \quad y \ge -x - 3$$

The boundary line is the oblique line y = -x - 3.



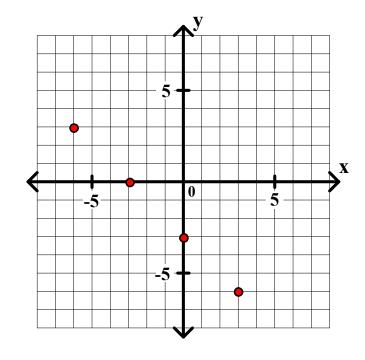
Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

$$8. \quad y \ge -x - 3$$

The boundary line is the oblique line y = -x - 3.



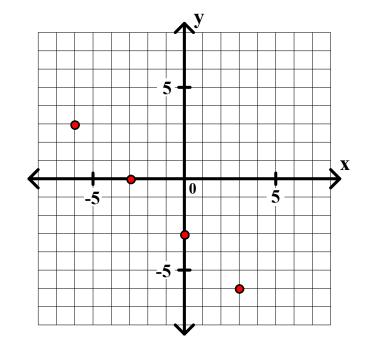
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

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The boundary line is the oblique line y = -x - 3.



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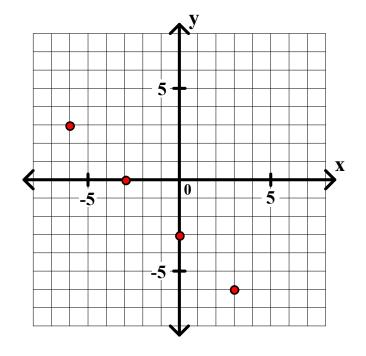
Step 2: Draw the boundary line.

Graph each of the following.

$$8. \quad y \ge -x - 3$$

The boundary line is the oblique line y = -x - 3.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

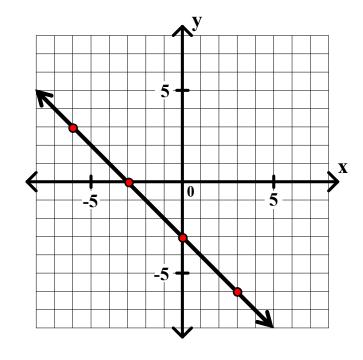
Step 2: Draw the boundary line.

Graph each of the following.

$$8. \quad y \ge -x - 3$$

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The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

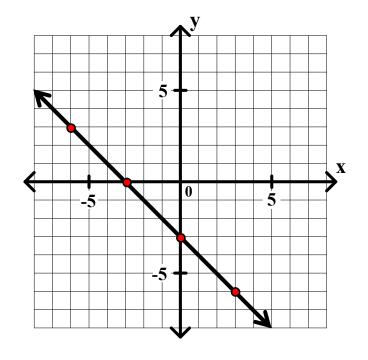
**Step 2: Draw the boundary line.** 

Graph each of the following.

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The boundary line is the oblique line y = -x - 3.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

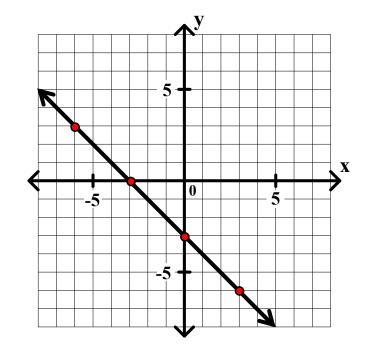
Step 2: Draw the boundary line.

Graph each of the following.

$$8. \quad y \ge -x - 3$$

The boundary line is the oblique line y = -x - 3.

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

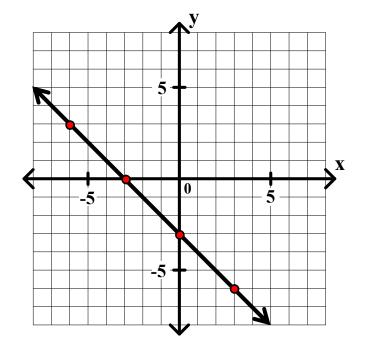
Graph each of the following.

$$8. \quad y \ge -x - 3$$

The boundary line is the oblique line y = -x - 3.

The boundary line is a solid line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

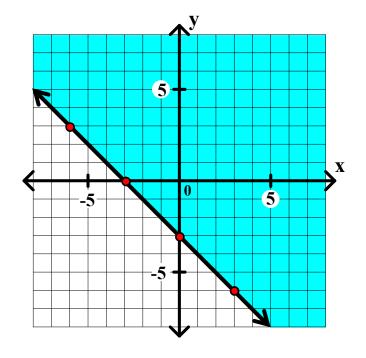
Graph each of the following.

8. 
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The boundary line is the oblique line y = -x - 3.

The boundary line is a solid line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

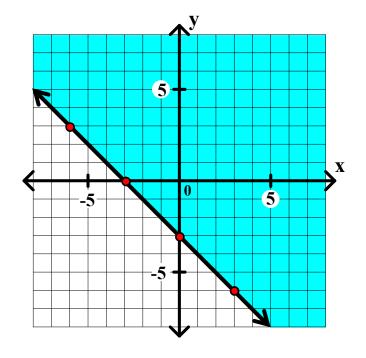
Graph each of the following.

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The boundary line is the oblique line y = -x - 3.

The boundary line is a solid line.

Shade above the line.

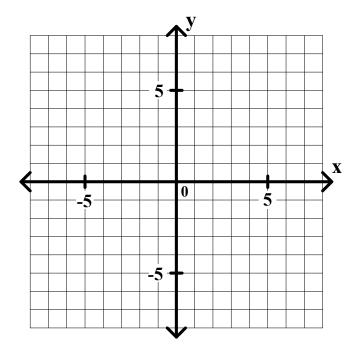


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

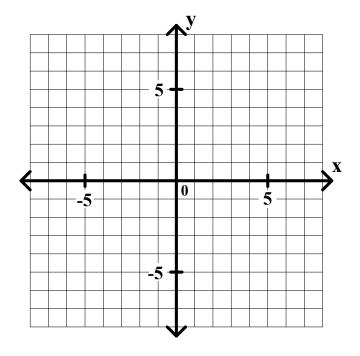


Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$



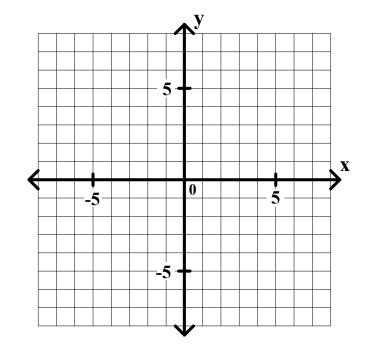
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .



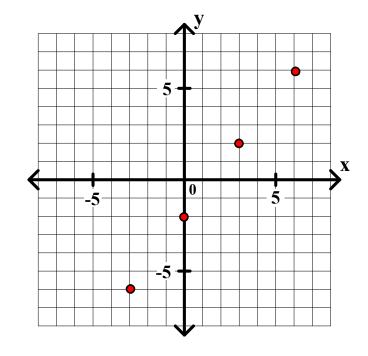
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .



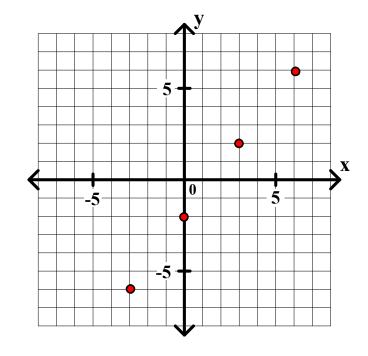
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

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$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .



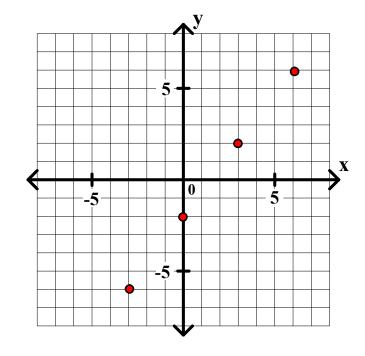
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .



Step 1: Graph several points on the boundary line.

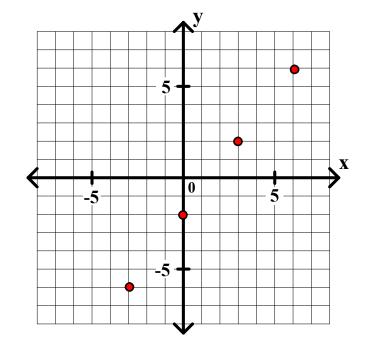
Step 2: Draw the boundary line.

Graph each of the following.

9. 
$$y \leq \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

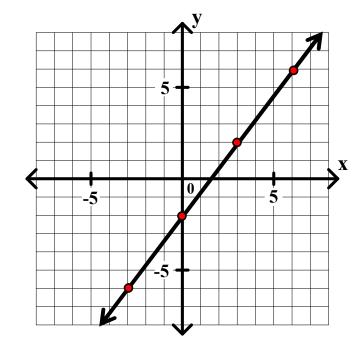
**Step 2: Draw the boundary line.** 

Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

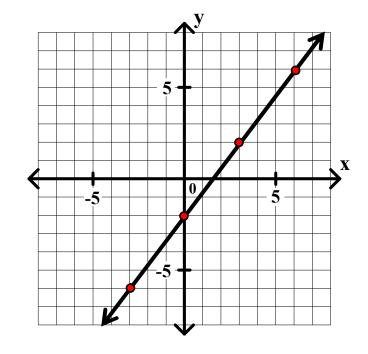
Step 2: Draw the boundary line.

Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

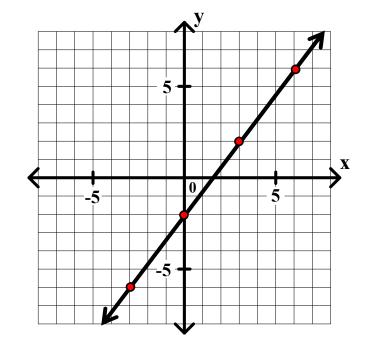
**Step 2: Draw the boundary line.** 

Graph each of the following.

$$9. \quad y \leq \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

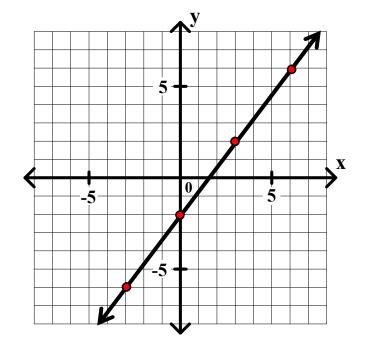
Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .

The boundary line is a solid line.

Shade below the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

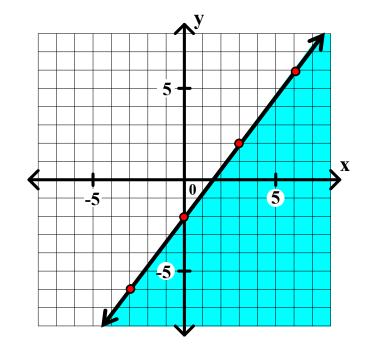
Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .

The boundary line is a solid line.

Shade below the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

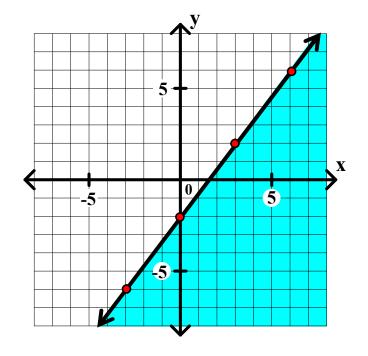
Graph each of the following.

9. 
$$y \le \frac{4}{3}x - 2$$

The boundary line is the oblique line  $y = \frac{4}{3}x - 2$ .

The boundary line is a solid line.

Shade below the line.

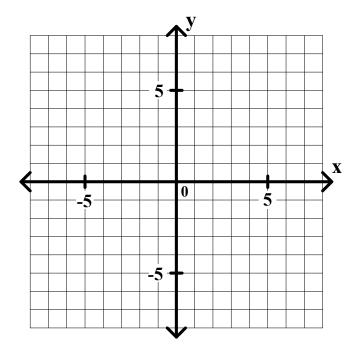


Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

10. 
$$y \ge \frac{3}{2}x + 2$$

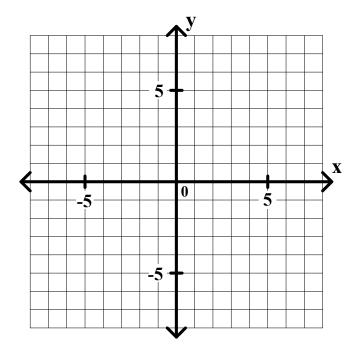


Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

10. 
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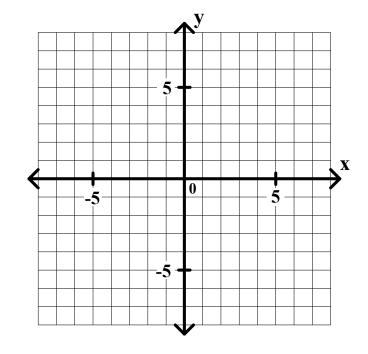
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

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$$y \ge \frac{3}{2}x + 2$$

The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .



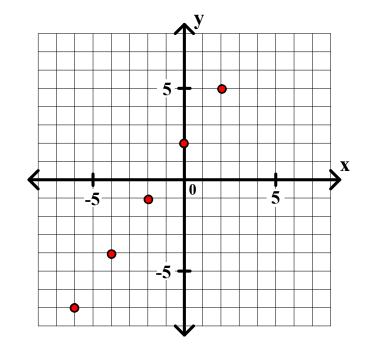
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

10. 
$$y \ge \frac{3}{2}x + 2$$

The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .



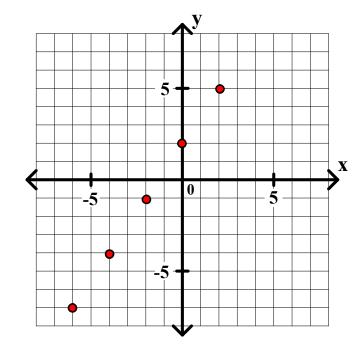
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

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The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .



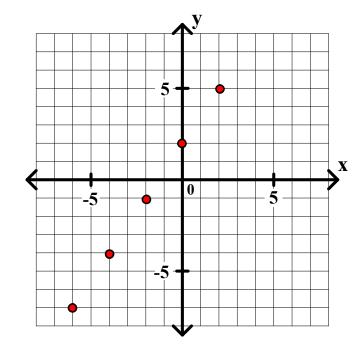
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Step 1: Graph several points on the boundary line.

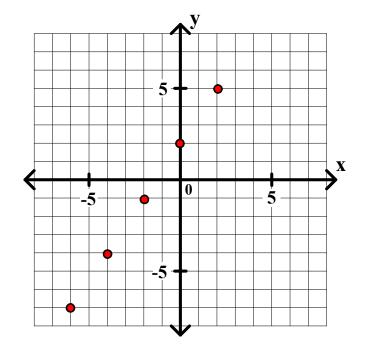
**Step 2: Draw the boundary line.** 

Graph each of the following.

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$$y \ge \frac{3}{2}x + 2$$

The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

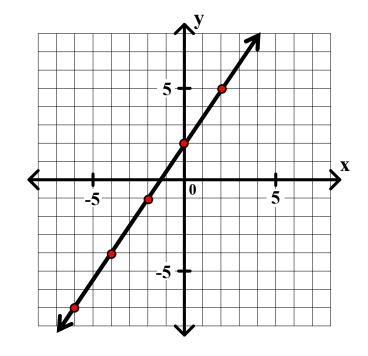
Step 2: Draw the boundary line.

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The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

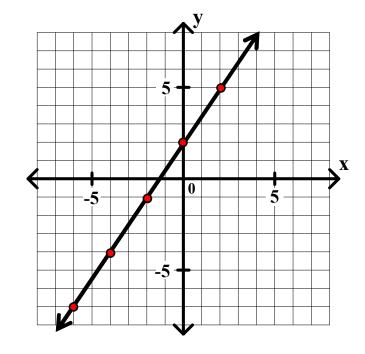
**Step 2: Draw the boundary line.** 

Graph each of the following.

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$$y \ge \frac{3}{2}x + 2$$

The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

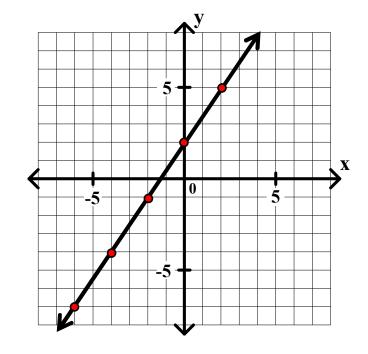
Step 2: Draw the boundary line.

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The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .

The boundary line is a solid line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

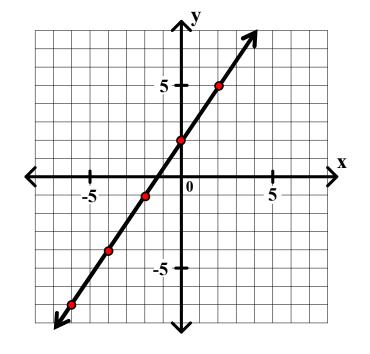
Graph each of the following.

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The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .

The boundary line is a solid line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

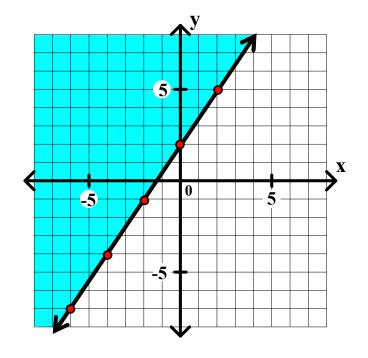
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The boundary line is a solid line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

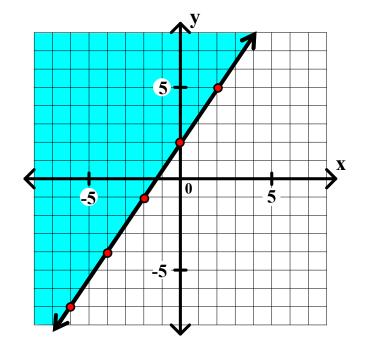
Graph each of the following.

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$$y \ge \frac{3}{2}x + 2$$

The boundary line is the oblique line  $y = \frac{3}{2}x + 2$ .

The boundary line is a solid line.

Shade above the line.

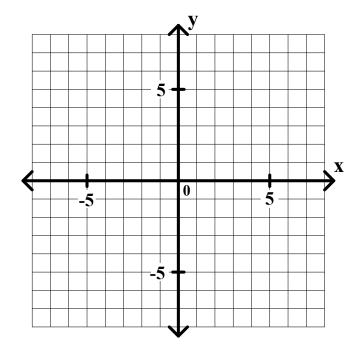


Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

Graph each of the following.

11. 
$$y < \frac{-1}{2}x + 2$$

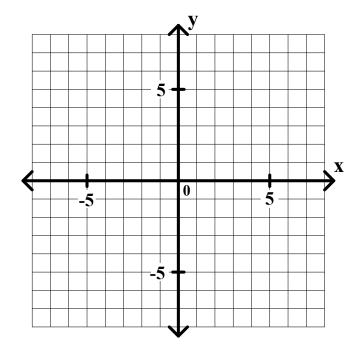


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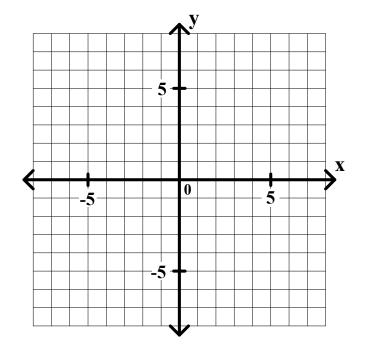
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

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

The boundary line is the oblique line  $y = \frac{-1}{2}x + 2$ .



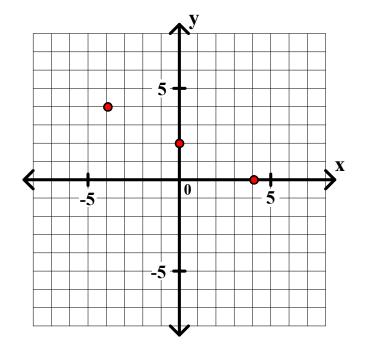
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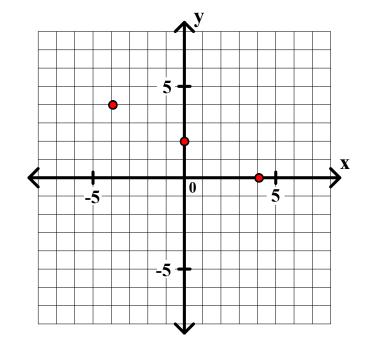
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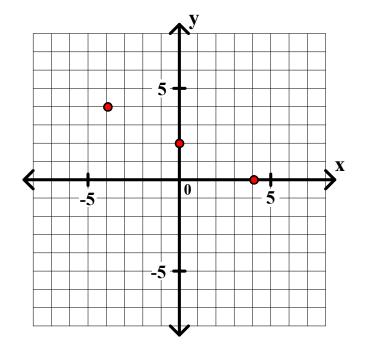
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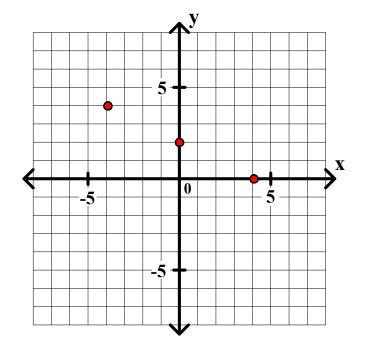
Step 2: Draw the boundary line.

Graph each of the following.

11. 
$$y < \frac{-1}{2}x + 2$$

The boundary line is the oblique line  $y = \frac{-1}{2}x + 2$ .

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

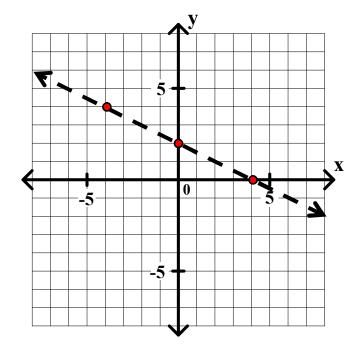
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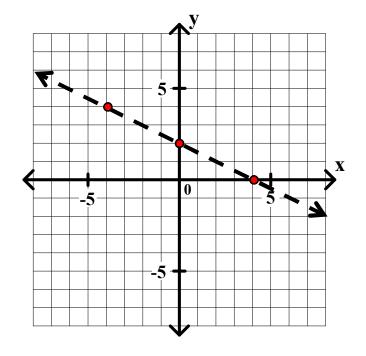
**Step 2: Draw the boundary line.** 

Graph each of the following.

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The boundary line is the oblique line  $y = \frac{-1}{2}x + 2$ .

The boundary line is a dashed line.



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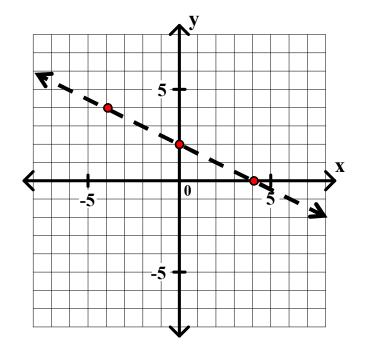
Step 2: Draw the boundary line.

Graph each of the following.

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

The boundary line is the oblique line  $y = \frac{-1}{2}x + 2$ .

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

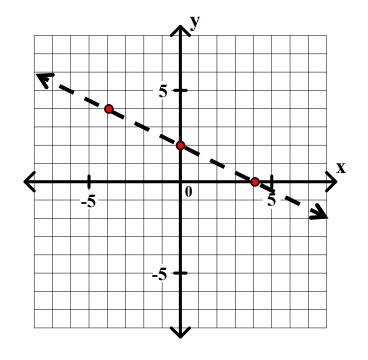
Graph each of the following.

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

The boundary line is the oblique line  $y = \frac{-1}{2}x + 2$ .

The boundary line is a dashed line.

Shade below the line.



Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

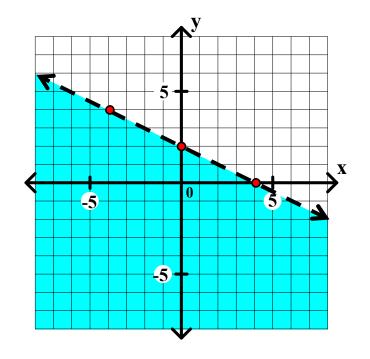
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Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

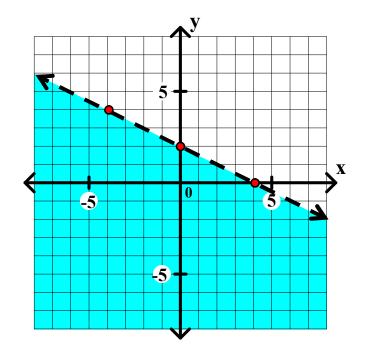
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The boundary line is the oblique line  $y = \frac{-1}{2}x + 2$ .

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Shade below the line.

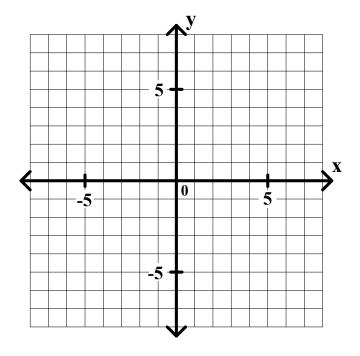


Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

12. 
$$y > \frac{-1}{3}x - 1$$

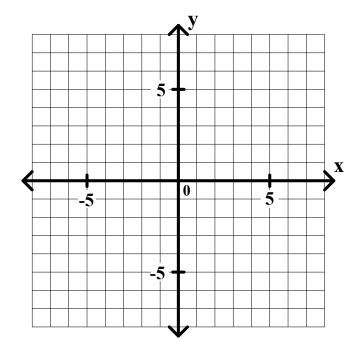


Step 1: Graph several points on the boundary line.

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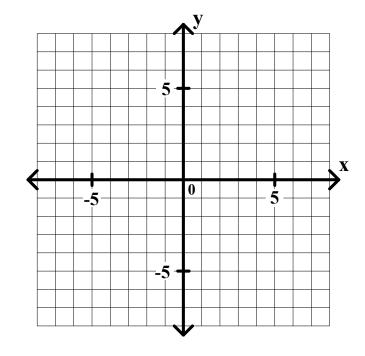
Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

Graph each of the following.

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$$y > \frac{-1}{3}x - 1$$

The boundary line is the oblique line  $y = \frac{-1}{3}x - 1$ .



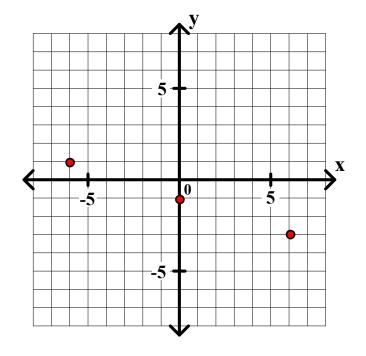
Step 1: Graph several points on the boundary line.

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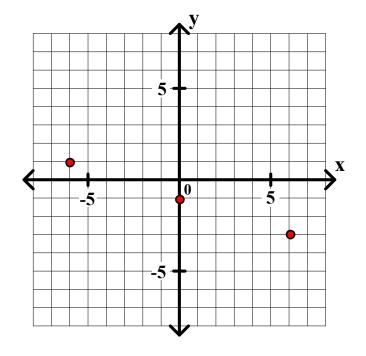
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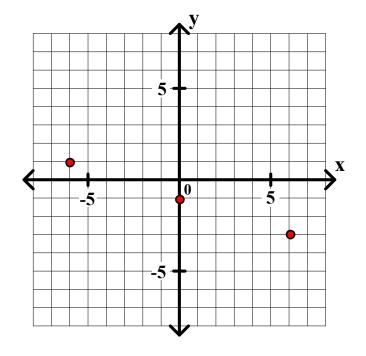
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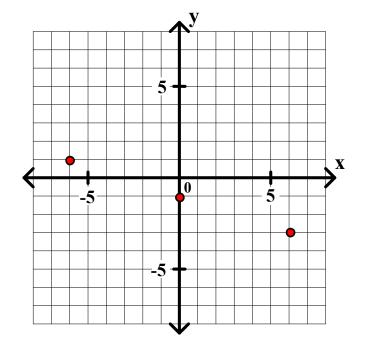
Step 2: Draw the boundary line.

Graph each of the following.

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The boundary line is the oblique line  $y = \frac{-1}{3}x - 1$ .

The boundary line is a dashed line.



Step 1: Graph several points on the boundary line.

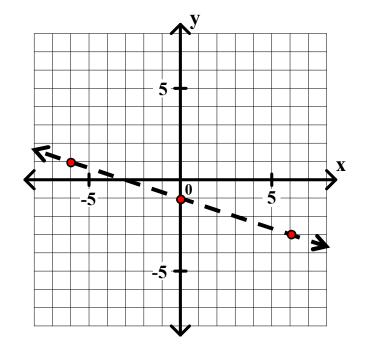
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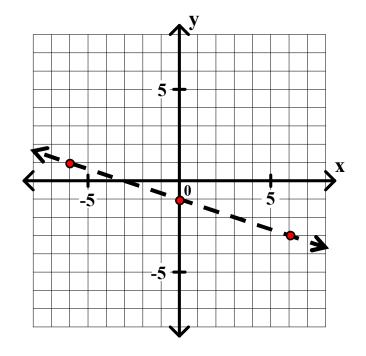
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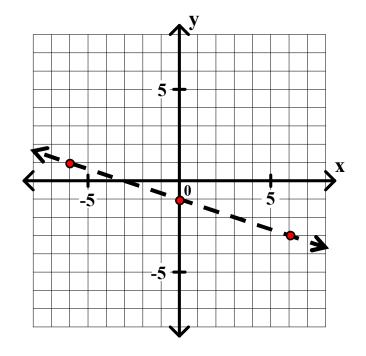
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Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

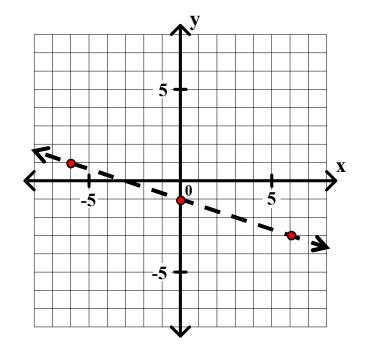
Graph each of the following.

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The boundary line is a dashed line.

Shade above the line.



Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.

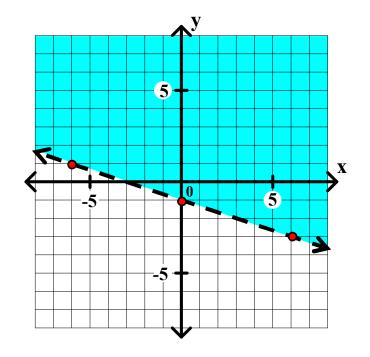
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The boundary line is a dashed line.

Shade above the line.



Step 1: Graph several points on the boundary line.

**Step 2: Draw the boundary line.** 

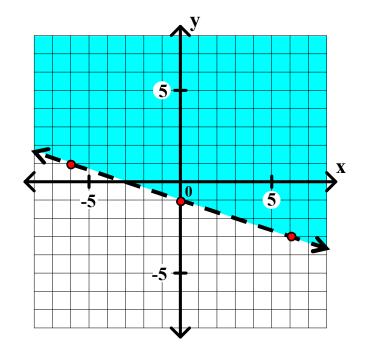
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Shade above the line.



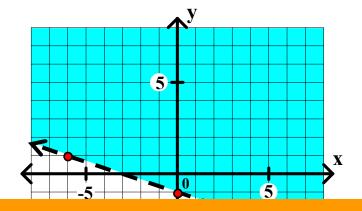
Step 1: Graph several points on the boundary line.

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# s Good luck on your homework!!

Step 1: Graph several points on the boundary line.

Step 2: Draw the boundary line.