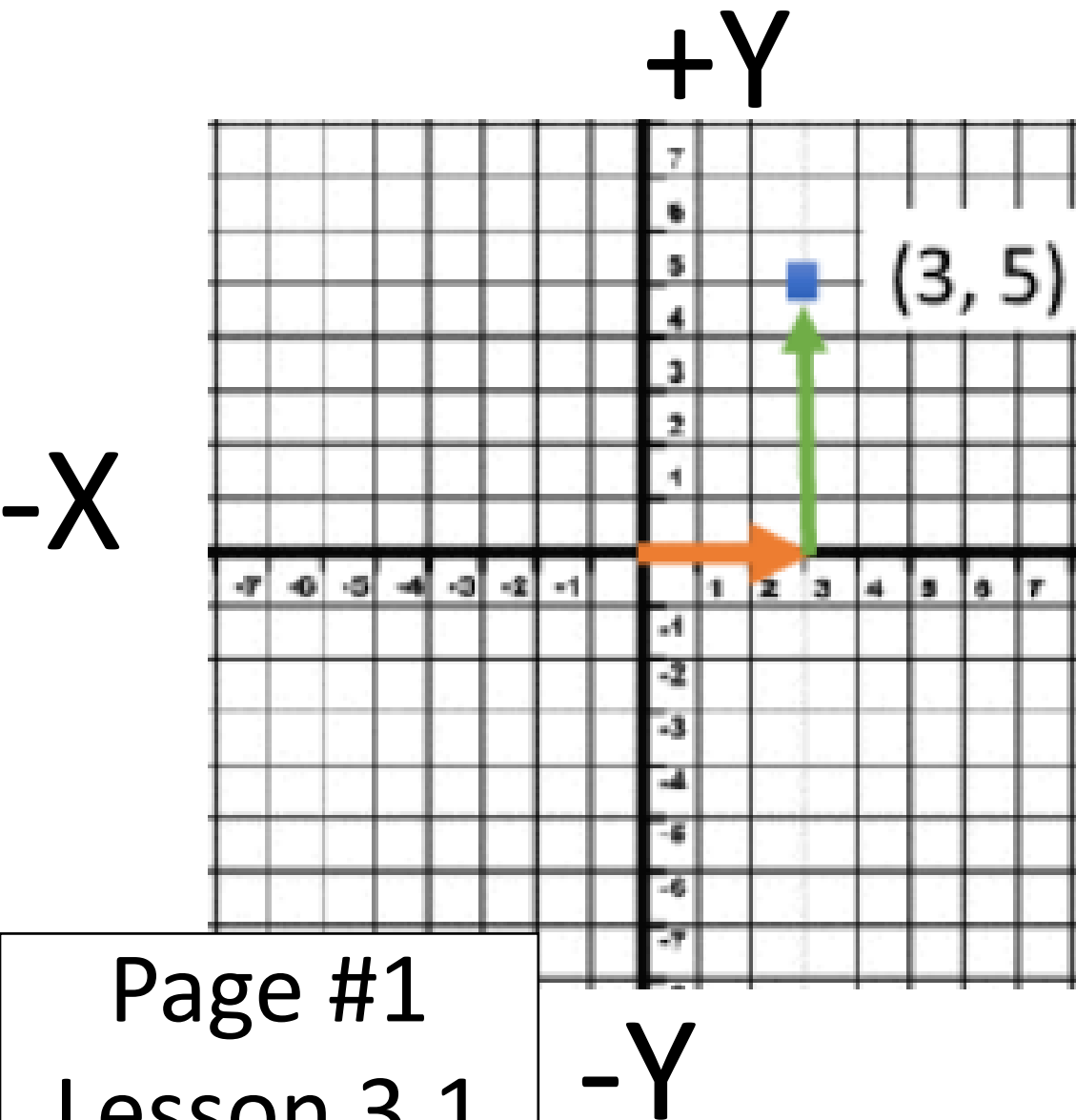# Activator



+Y

-X

+X

-Y

Page #1
Lesson 3.1

Where is (3, 5)?
+3 right and +5 up
What does
the 3 mean? Right
What does the
5 mean? Up

Is x the number line?  Yes

# Today's Objective

## Lesson 3.1

Students will be able to graph lots of points in function notation.

# Announcements

# Definition

It is mathematics problem with ALL different x-values.

# Facts

Can be displayed as: an equation, graph, a line and/or a table

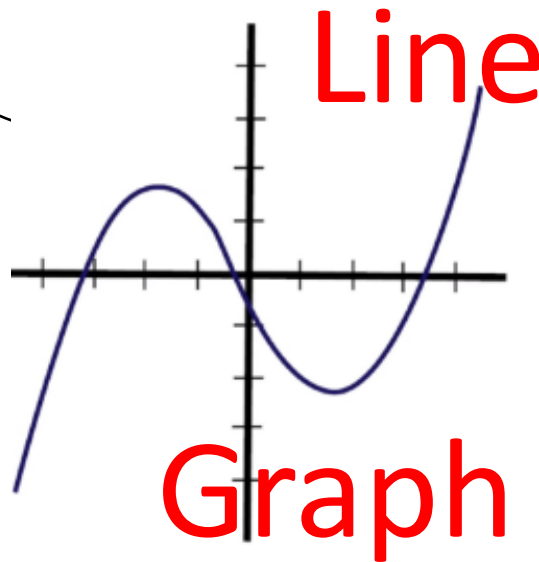## A function

# Example(s)

Input Value

Equation

$$f(x) = x - 5$$

Function Name

Output Value

Line

Graph

| x | y |
|----|----|
| -2 | 1 |
| -1 | 1 |
| 0 | 2 |
| 1 | 3 |
| 2 | 4 |

Table

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Lesson 3.1

# Today's New Vocab (2 of 4)

X positive is right. X negative is left.
Y positive is up. Y negative is down.

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Lesson 3.1

Graph the points.
(x, y) ←Always
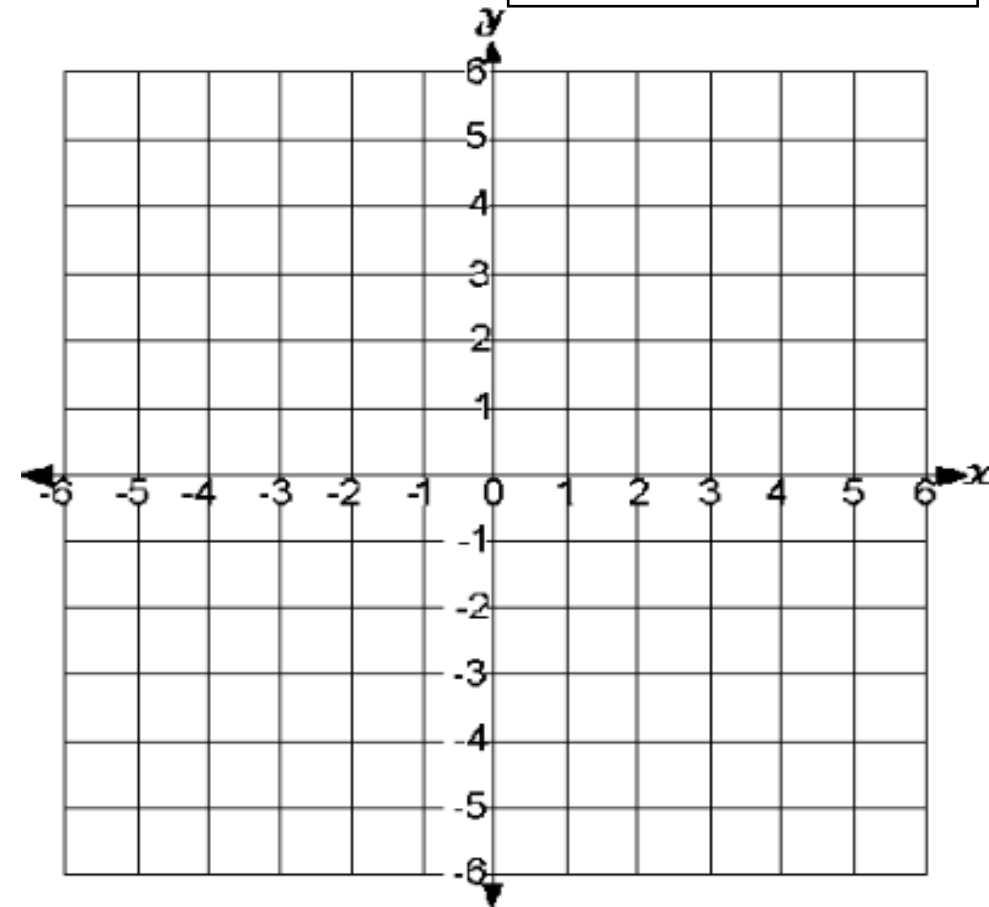(2, 1) (2right, 1up)
(4,-3) (4right, 3down)
(-3, 2) (3left, 2up)
(-1,-2) (1left, 2down)

Write the function as a point.

Graph the point.

Right    Down

$F(7) = -5$    (7, -5)
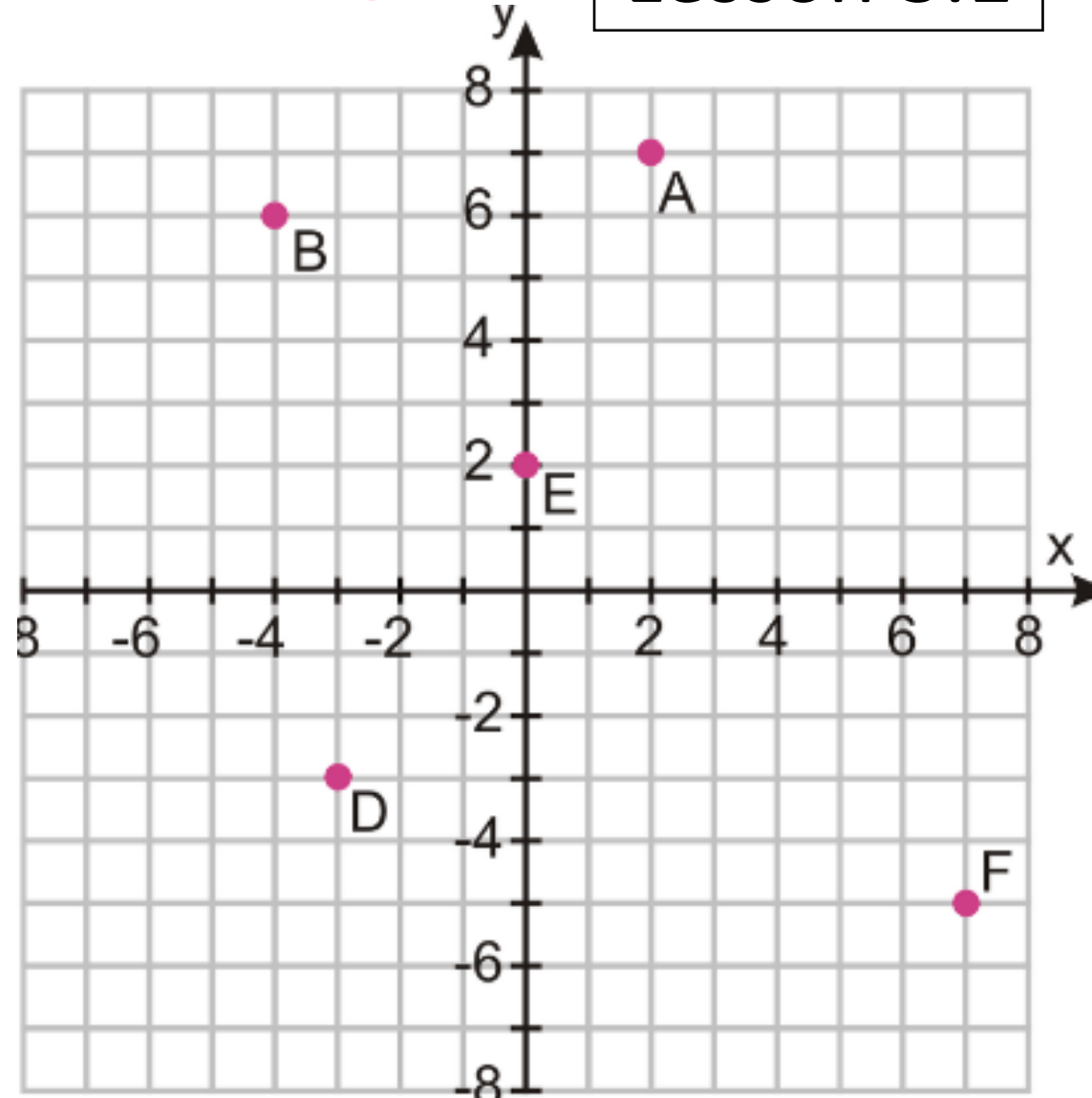
What point is this?  F

Left    UP

$B(-4) = 6$    (-4, 6)
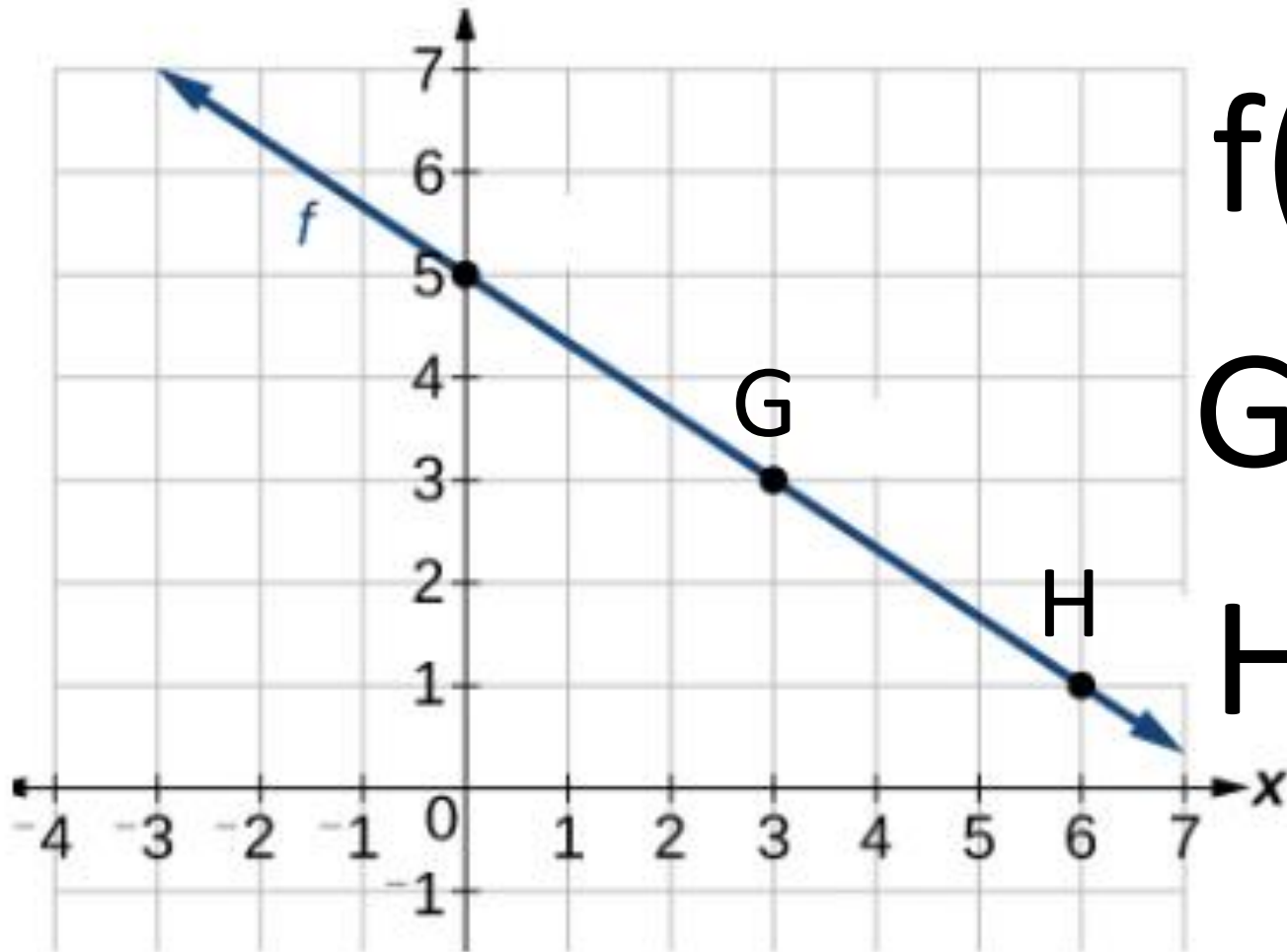
What point is this?  B

Write the points in function notation.



|  | X | y | X | y |
|---|---|---|---|---|
| f(0) = 5 | | | (0, 5) | |
| G(3) = 3 | | | (3, 3) | |
| H(6) = 1 | | | (6, 1) | |

Page #2
Lesson 3.1

**Group Wars**

What is G(3) and F(4) using substitution?

$G(x) = -2x$          $F(x) = x - 7$

$G(3) = -2(3)$        $F(4) = (4) - 7$

$G(3) = -6$     Page #2     $F(4) = -3$
                Lesson 3.1

$(3, -6)$  The point is...  $(4, -3)$

# Group Work Questions

Directions: All groups, please do HALF all of the questions. Use your notes from last class to help you. [Ask 2 people before you ask me.]

Tuesday, we did Lesson 3.1 Notes.

*One person from each group will present one question.

# **Exit Ticket**

## Graph the table and write the functions.

| X | Y |
|---|---|
| -3 | -6 |
| -2 | -4 |
| 1 | 2 |
| 2 | 4 |

F(-3) = -6

G(-2) = -4

H(1) = 2

J(2) = 4