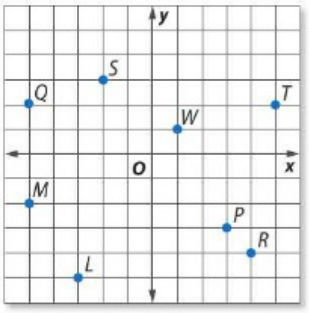
Guided Practice

Name the ordered pair for each point graphed at the right. (Example 1)



1. Q
2. P
3. T
4. M

Graph and label each point on a coordinate plane. Name the quadrant in which each point is located. (Example 2)

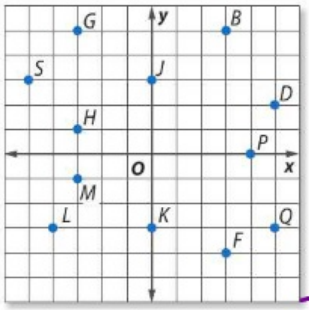
5. $A(-2, 3)$
6. $B(4, -1)$
7. $C(-3, -2)$
8. $D(0, -5)$

9. **Model with Mathematics** The difference of two temperatures is 4°F. If x represents the first temperature and y represents the second temperature, make a table of possible values for x and y. Graph the ordered pairs and describe the graph. (Example 3)

Independent Practice

Go online for Step-by-Step Solutions

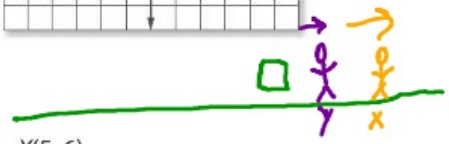
Name the ordered pair for each point graphed at the right. (Example 1)



10. S
11. H
12. D
13. B
14. M
15. L
16. F
17. Q
18. K
19. J

Graph and label each point on a coordinate plane. Name the quadrant in which each point is located. (Example 2)

20. $Z(-1, 1)$
21. $Y(-2, 3)$
22. $X(5, 6)$
23. $W(6, 2)$
24. $V(-1, -6)$
25. $S(2, -1)$
26. $T(-5, 0)$
27. $R(0, -4)$
28. $P(-4, 5)$
29. $Q(-3, 3)$
30. $N(1, -1)$
31. $K(5, -3)$



x	y
20	10
30	20
40	30
10	0
0	-10

32. **Model with Mathematics** After two plays, the Wildcats gained a total of 16 yards. If x represents the number of yards for play one, and y represents the number of yards for play two, make a table of possible values for x and y. Graph the ordered pairs and describe the graph. (Example 3)

33. **Model with Mathematics** The distance between two runners in a race is 10 feet. If x represents the position of one runner in relation to a water stop and y represents the position the second runner, make a table of possible values for x and y. Graph the ordered pairs and describe the graph. (Example 3)

Persevere with Problems **Name the quadrant in which each point lies.**

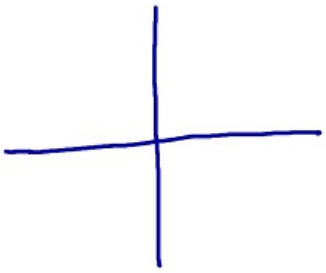
34. $A(5, |-6|)$
35. $E(|-5|, -3)$
36. $J(x, y)$ if $x < 0, y > 0$
37. $U(x, y)$ if $x > 0, y < 0$

38. Consider the points $A(-4, 3)$, $B(1, 3)$, $C(1, 2)$, and $D(-4, 2)$.

a. Graph the points on a coordinate plane and connect them to form a rectangle.

b. Add 4 to the x-coordinate of each ordered pair and redraw the figure.

c. Compare the two rectangles.



39 **STEM** The table shows temperatures in degrees Celsius and the corresponding temperatures in degrees Fahrenheit. Graph the ordered pairs (°Celsius, °Fahrenheit) to show the relationship between degrees Celsius and degrees Fahrenheit.

X
y

Celsius	−10	−5	0	5	10
Fahrenheit	14	23	32	41	50

40. **Financial Literacy** The table shows the balance on a $50 music card after a certain number of songs have been downloaded.

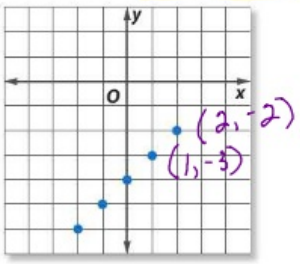
a. Make a graph to show how the number of songs downloaded and the remaining balance are related.

b. Use your graph to find the balance on the card after 25 songs have been downloaded.

Songs Downloaded	Balance ($)
0	50
5	45
10	40
15	35

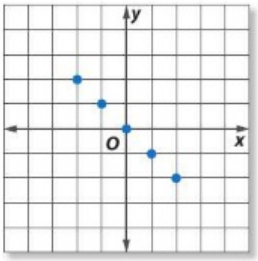
For each graph, create a table showing the rule and the values for x and y.

41.



x	y
2	-2
1	-3

42.



Graph and label each point on a coordinate plane.

43. $A(-6.5, 3)$ **44.** $B(-2, -5.75)$ **45.** $C(4.1, -1)$ **46.** $D(-3.4, 1.5)$

H.O.T. Problems Higher Order Thinking

47. CCSS **Identify Structure** Write the coordinates of a point located in quadrant II.

48. CCSS **Persevere with Problems** The product of two numbers is 12.

a. Make a table using −3, −2, −1, 1, 2, and 3 as x values.

b. Graph the ordered pairs. Compare and contrast this graph with the one in Example 3.

49. CCSS **Persevere with Problems** Determine whether each statement is *always*, *sometimes*, or *never* true. Explain or give a counterexample to support your answer.

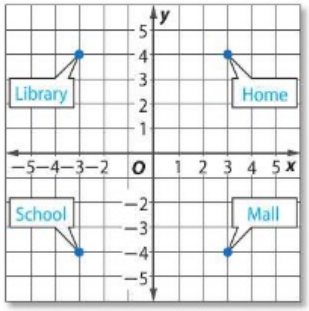
a. Both x- and y-coordinates of a point in quadrant I are negative.

b. The x-coordinate of a point that lies on the x-axis is negative.

50. **Building on the Essential Question** How does the location of the points (−7, 8) and (8, −7) change if you multiply each of the coordinates in each ordered pair by −1? Explain your reasoning to a classmate.

Standardized Test Practice

51. Which point on the graph best represents the location of the library?



A (3, 4)
C (−3, 4)
B (−3, −4)
D (3, −4)

52. What building is located at point (−3, −4) on the graph above?

F School
H Library
G Mall
J Home

53. In which quadrant on the coordinate plane is point (2, −3)?

A quadrant I
B quadrant II
C quadrant III
D quadrant IV

54. **Short Response** Juan wants to rent 4 DVDs. Each DVD costs $3 for two days. Complete the table to show his total cost for the number of days given.

Number of Days	Total Cost ($)
2	■
4	■
6	■

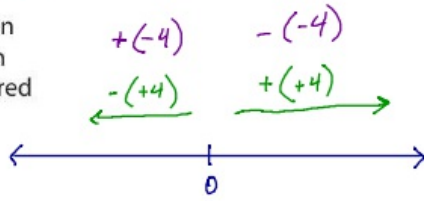
Common Core Review

Find each quotient. 7.NS.2b

55. −27 ÷ (−9)
56. −77 ÷ 7
57. −300 ÷ 6

58. STEM A glacier was receding at a rate of 300 feet per day. What is the glacier's movement in 5 days? (*Hint*: The word *receding* means *moving backward*.) 7.NS.2a

59. Lincoln High School's swim team finished the 4 × 100-meter freestyle relay in 5 minutes 18 seconds. Prospect High School's swim team finished the race in 5 minutes 7 seconds. Write an integer that represents Lincoln's finish compared to Prospect's finish. 7.NS.1c



Evaluate each expression. 7.NS.1

60. |−9 − 1|
61. |10| − |−4|
62. |16| + |−5|

Find each sum. 7.NS.1

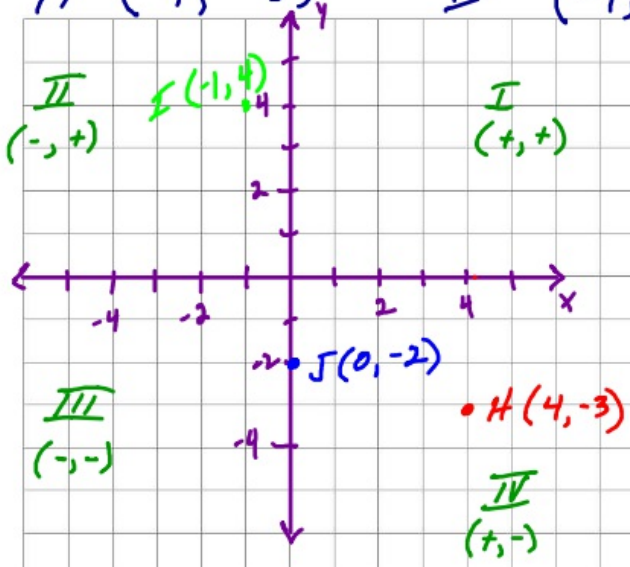
63. −85 + 15
64. −13 + (−8)
65. −10 + 12

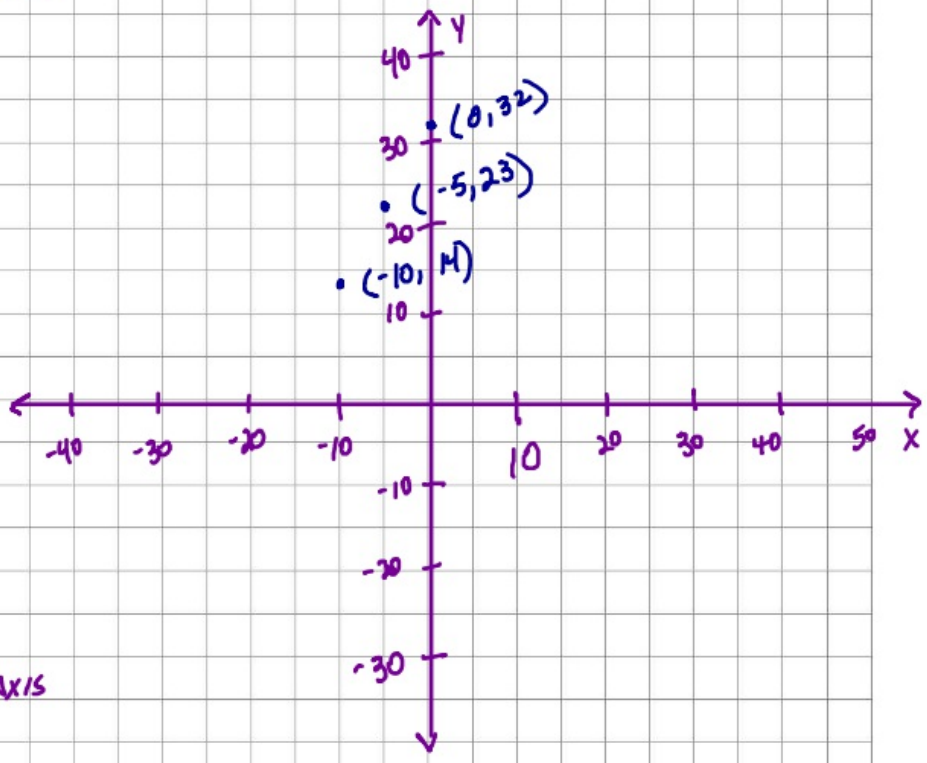
Evaluate each expression if $a = -5$, $b = 4$, and $c = -9$. 7.NS.1, 7.NS.2

66. $4a + c$
67. $4b + c$
68. $-b + 2a$
69. $-b - 2a$
70. $a(b + c)$
71. $a(b - c)$
72. $|a - b|$
73. $4a \div (5b)$
74. $(c - a) \cdot (a - c)$

$-5[4-(-9)]$
$-5(13)$
-65

H (4, -3) I (-1, 4) J (0, -2)





CELSIUS X-AXIS

FAHRENHEIT Y-AXIS