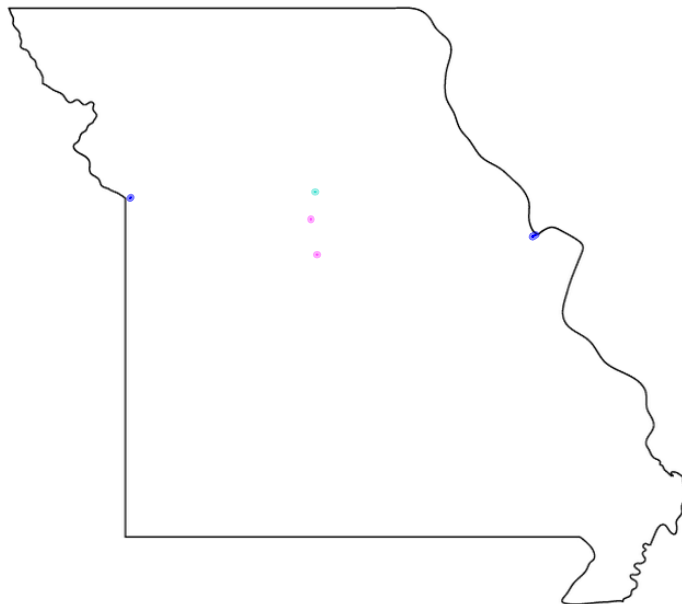
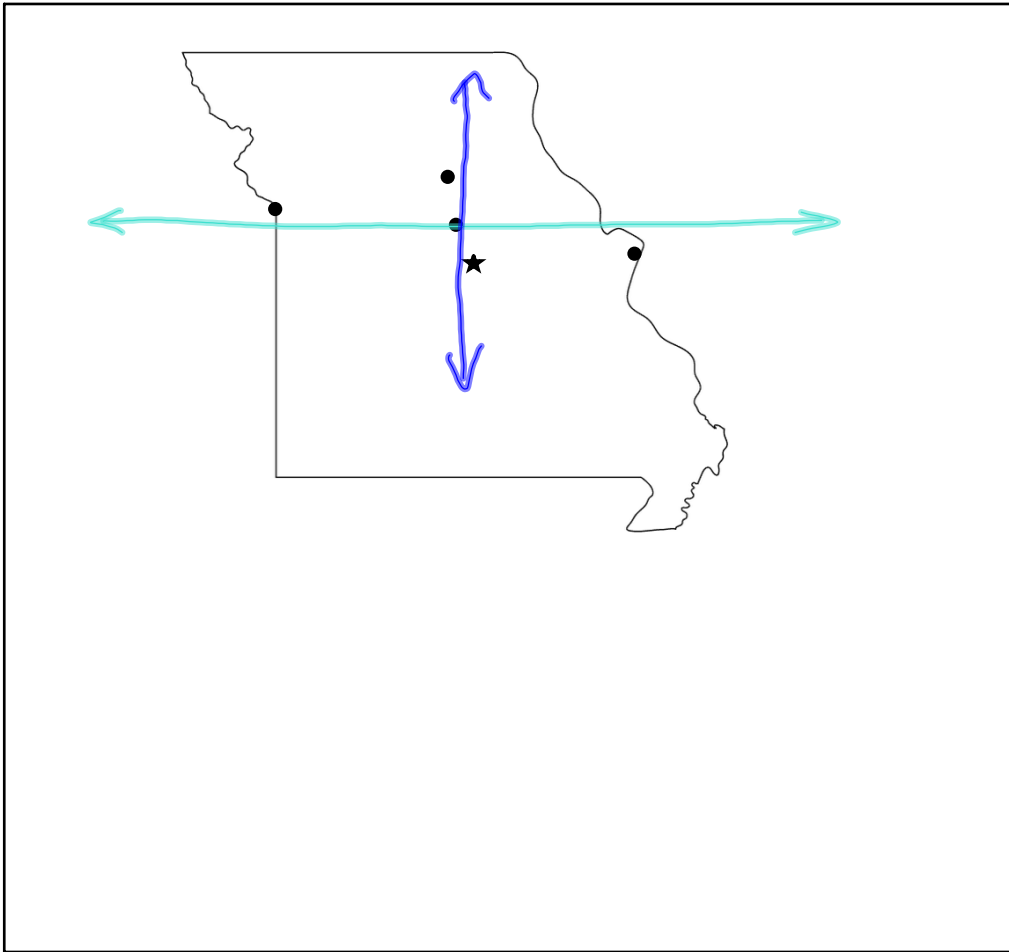


Algebra 1

Chapter 1

Section 1-9





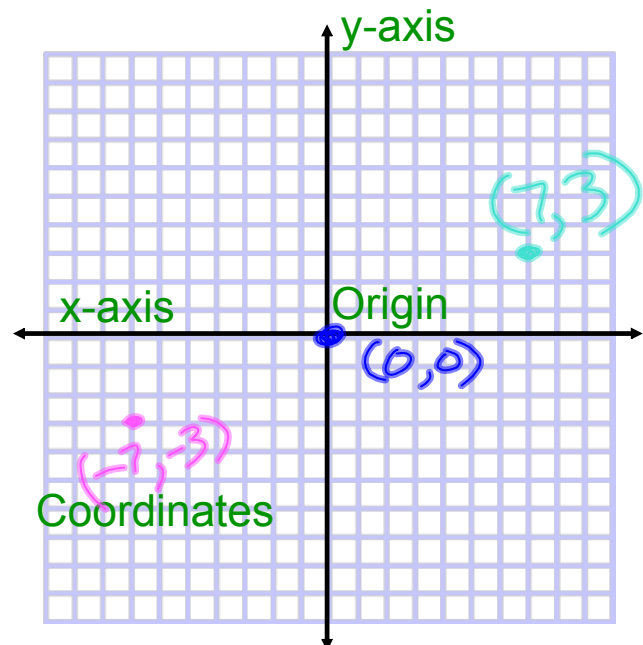
The Coordinate Plane

x-axis - horizontal number line

y-axis - vertical number line

Coordinates - identify the position of a point

Origin - intersection of x-axis and y-axis

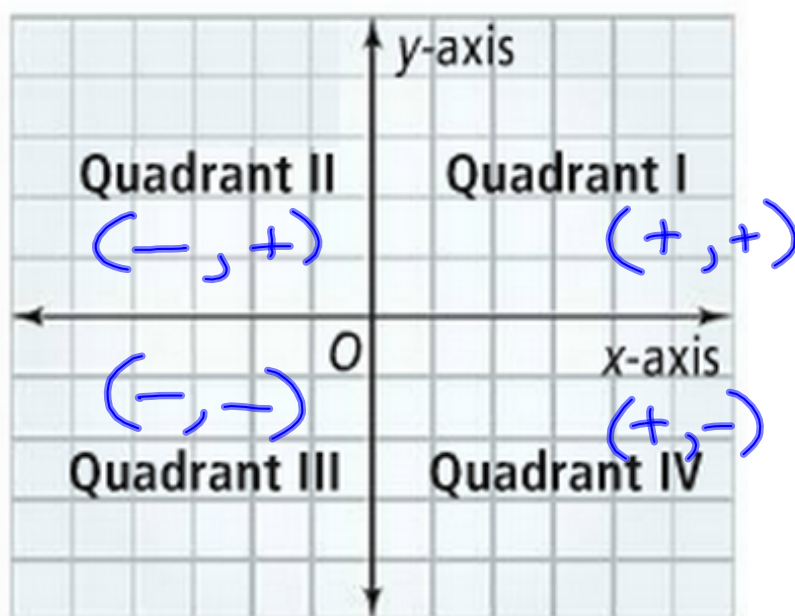
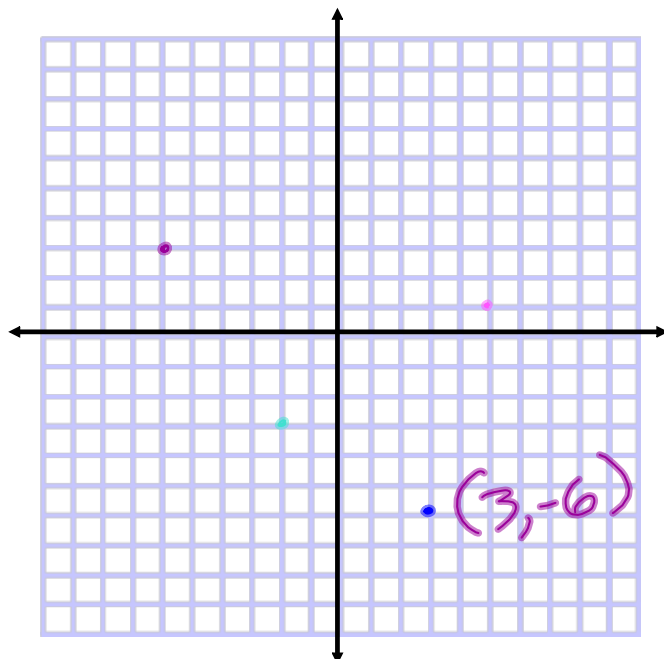


Plot the points:

• $(5, 1)$

• $(-6, 3)$

• $(-2, -3)$



Both Carrie and her sister Kim were born on October 25, but Kim was born two years before Carrie. List the relationship between Carrie's age and Kim's age three ways: by table, equation and graph.

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Step 1 Make a table.

Carrie's and Kim's Ages (years)										
Carrie's Age	1	2	3	4	5	6	7	8	9	10
Kim's Age	3	4	5	6	7	8	9	10	11	12

Both Carrie and her sister Kim were born on October 25, but Kim was born two years before Carrie. List the relationship between Carrie's age and Kim's age three ways: by table, equation and graph.

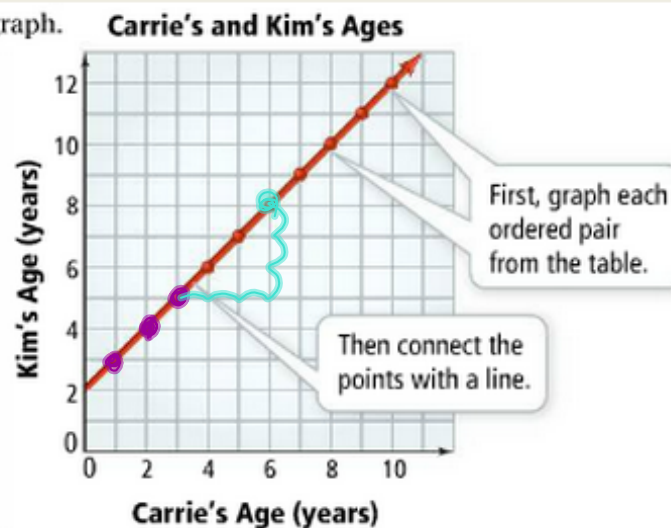
Step 2 Write an equation.

Let x = Carrie's age. Let y = Kim's age. From the table, you can see that y is always 2 greater than x .

$$\text{So } y = x + 2.$$

Both Carrie and her sister Kim were born on October 25, but Kim was born two years before Carrie. List the relationship between Carrie's age and Kim's age three ways: by table, equation and graph.

Step 3 Draw a graph.



Ordered Pair Solutions

$$2x + y = 7$$

Is (4, -1) a solution?

$$2 \cdot 4 + (-1) \stackrel{?}{=} 7$$

Yes



$$x^3 + 4y^2 = 17$$

Is (1, 4) a solution?

$$1^3 + 4 \cdot 4^2 \stackrel{?}{=} 17$$

$$1 + 4 \cdot 16 \stackrel{?}{\neq} 17$$

No