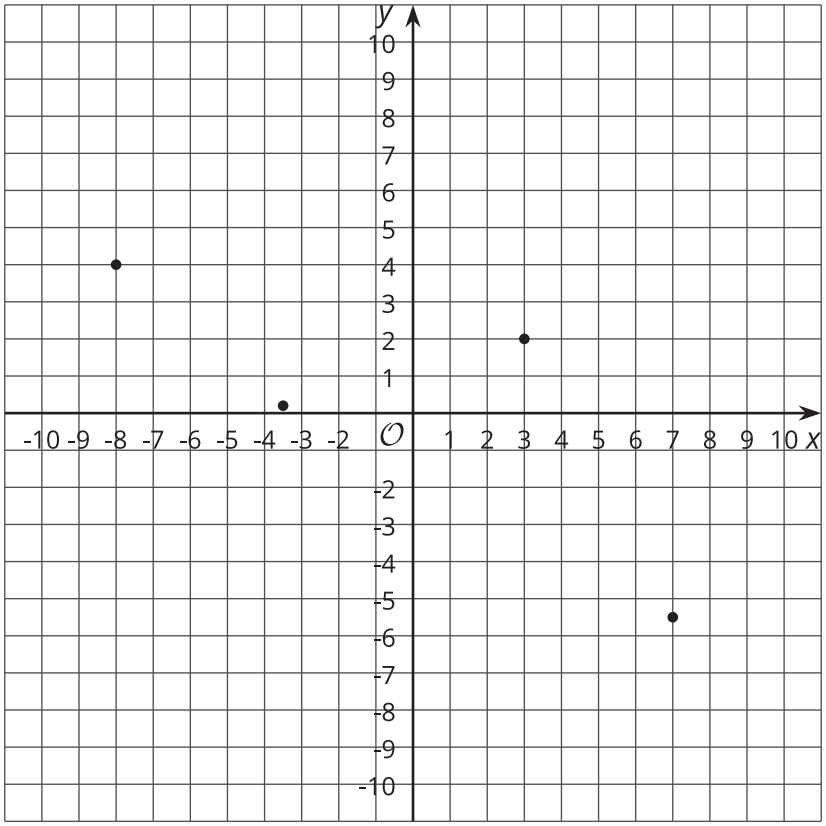
Interpreting Points in a Coordinate Plane

Let's examine what points in the coordinate plane can tell us.

12.1 Unlabeled Points

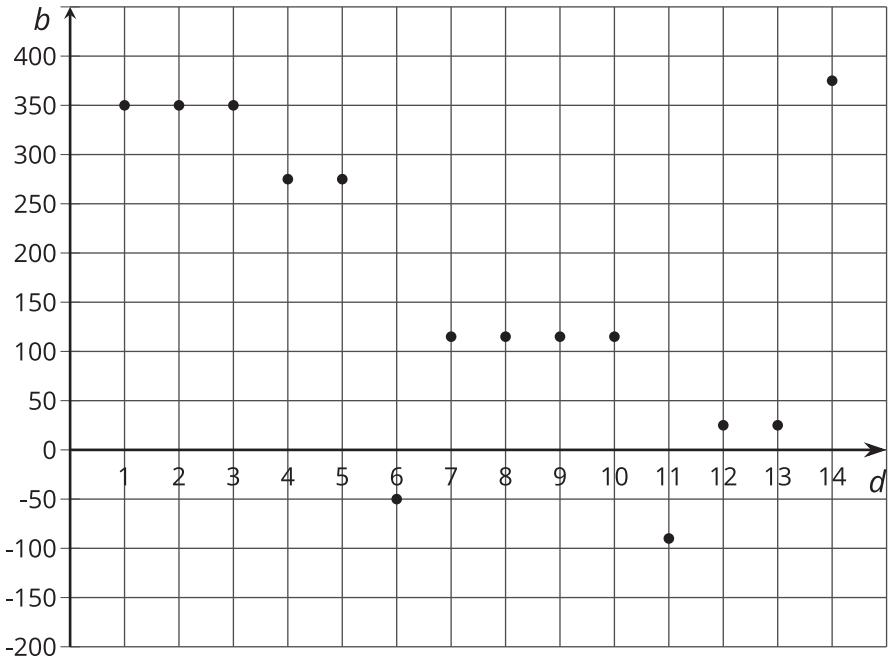
Label each point in the coordinate plane with the letter that represents its coordinates.



$A(7, -5.5)$ $B(-8, 4)$ $C(3, 2)$ $D(-3.5, 0.2)$

12.2 Account Balance

The graph shows the balance in a bank account over a period of 14 days. The axis labeled b represents account balance in dollars. The axis labeled d represents the day.



1. Estimate the greatest account balance. On which day did it occur?

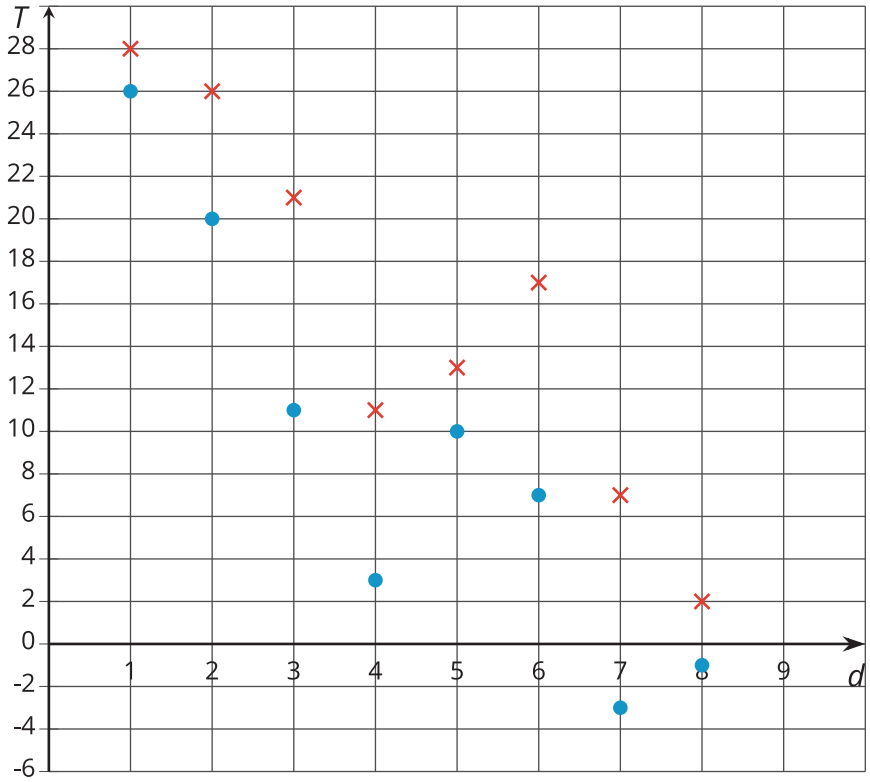
2. Estimate the least account balance. On which day did it occur?

3. What does the point $(6, -50)$ tell you about the account balance?

4. How can we interpret $|-50|$ in the context?

12.3 High and Low Temperatures

The coordinate plane shows the high (x) and low (circle) temperatures in Nome, Alaska, over a period of 8 days. The axis labeled T represents temperature in degrees Fahrenheit. The axis labeled d represents the day.



1. What was the warmest high temperature?
2. What was the coldest low temperature?
3. a. On which day(s) did the largest difference between the high and low temperatures occur? What was this difference in degrees Fahrenheit?

   b. On which day(s) did the smallest difference between the high and low temperatures occur? What was this difference in degrees Fahrenheit?

Lesson 12 Summary

Points in the coordinate plane can give us information about a situation. One common situation is about money.

For example, to open a bank account, money has to be added to the account. The account balance is the amount of money in the account at any given time. If we put in $350 when opening the account, then the account balance will be 350.

Sometimes we may have no money in the account and need to borrow money from the bank. In that situation, the account balance would have a negative value. If we borrow $200, then the account balance is -200.

A coordinate plane can be used to display both the balance and the day or time. This allows us to see how the balance changes over time or to compare the balances of different days. Similarly, if we plot data such as temperature over time in the coordinate plane, we can see how temperature changes over time or compare temperatures at different times.

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