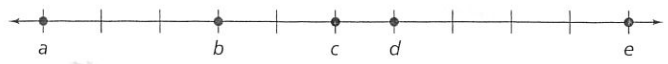
Exercises

For Exercises 1–4, graph each integer on a number line. Then identify any opposites.

1. $^{-}1, 4, 2, ^{-}4, 3, 1$
2. $2, 0, ^{-}3, 4, ^{-}1, 3$
3. $^{-}5, 10, ^{-}2, 4, 0, ^{-}10$
4. $^{-}5, 8, ^{-}7, ^{-}10, 5, 10$
5. Use an integer to represent each play in a football game.
   a. The fullback carries the ball for a gain of 6 yards.
   b. The quarterback is sacked for a loss of 3 yards.
   c. The play stops at the line of scrimmage for no gain.
6. Use an integer to represent each change to a bank account.
   a. A deposit of $20 is made on Monday.
   b. A check for $4 is written on Tuesday.
   c. A check for $6 is written on Wednesday.
   d. No transactions are made on Thursday.
7. Use an integer to represent each position of an elevator.
   a. The elevator leaves the ground floor and arrives at the 12th floor.
   b. The elevator leaves the ground floor and arrives at the second basement level.
   c. The elevator leaves the ground floor, arrives at the 7th floor, and then travels down 3 floors.
8. Use an integer to represent time in seconds for a space-ship launch.
   a. Lift off.
   b. The countdown begins with 10 seconds before lift off.
   c. The space ship has been in the air for one minute.
   d. Why do you think a launch countdown starts at *T-minus ten seconds?*
9. Use the number line below.



   a. If a and e are opposites, what integer would you use to represent c? Assign integer values to a and e.
   b. If a and d are opposites, is c *positive* or *negative*? Explain.

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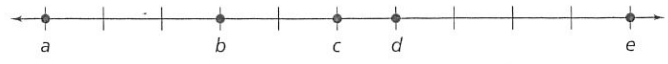

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