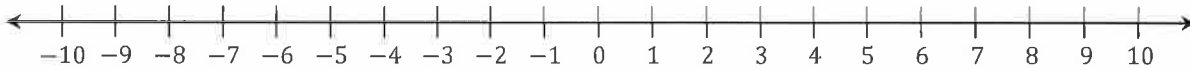
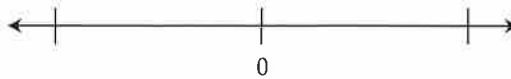


**Problem Set**

1. Find the opposite of each number, and describe its location on the number line.
  - a.  $-5$
  - b.  $10$
  - c.  $-3$
  - d.  $15$
  
2. Write the opposite of each number, and label the points on the number line.
  - a. Point  $A$ : the opposite of  $9$
  - b. Point  $B$ : the opposite of  $-4$
  - c. Point  $C$ : the opposite of  $-7$
  - d. Point  $D$ : the opposite of  $0$
  - e. Point  $E$ : the opposite of  $2$



3. Study the first example. Write the integer that represents the opposite of each real-world situation. In words, write the meaning of the opposite.
  - a. An atom's positive charge of  $7$
  - b. A deposit of  $\$25$
  - c.  $3,500$  feet below sea level
  - d. A rise of  $45^{\circ}\text{C}$
  - e. A loss of  $13$  pounds
  
4. On a number line, locate and label a credit of  $\$38$  and a debit for the same amount from a bank account. What does zero represent in this situation?



5. On a number line, locate and label  $40^{\circ}\text{C}$  below zero and  $40^{\circ}\text{C}$  above zero. What does zero represent in this situation?



**Problem Set**

1. Read each description carefully, and write an equation that represents the description.
  - a. The opposite of negative seven
  - b. The opposite of the opposite of twenty-five
  - c. The opposite of fifteen
  - d. The opposite of negative thirty-six
  
2. Jose graphed the opposite of the opposite of 3 on the number line. First, he graphed point  $P$  on the number line 3 units to the right of zero. Next, he graphed the opposite of  $P$  on the number line 3 units to the left of zero and labeled it  $K$ . Finally, he graphed the opposite of  $K$  and labeled it  $Q$ .



- a. Is his diagram correct? Explain. If the diagram is not correct, explain his error, and correctly locate and label point  $Q$ .
- b. Write the relationship between the points:
 

$P$  and  $K$  \_\_\_\_\_

$K$  and  $Q$  \_\_\_\_\_

$P$  and  $Q$  \_\_\_\_\_
  
3. Read each real-world description. Write the integer that represents the opposite of the opposite. Show your work to support your answer.
  - a. A temperature rise of 15 degrees Fahrenheit
  - b. A gain of 55 yards
  - c. A loss of 10 pounds
  - d. A withdrawal of \$2,000
  
4. Write the integer that represents the statement. Locate and label each point on the number line below.
  - a. The opposite of a gain of 6
  - b. The opposite of a deposit of \$10
  - c. The opposite of the opposite of 0
  - d. The opposite of the opposite of 4
  - e. The opposite of the opposite of a loss of 5

