

## 2.3

## Adding Integers on a Number Line



### Quick Review

- You can add integers using a number line.

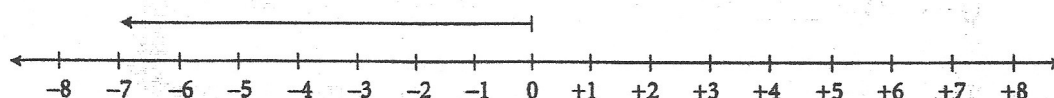
To add a positive integer, move right.

To add a negative integer, move left.

To add:  $(-7) + (+13)$

Start at  $-7$ .

This is 7 units to the left of 0.



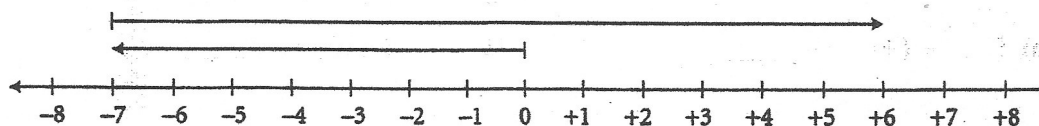
### HINT

Always start the second arrow where the first arrow ends.



Then, add  $+13$ .

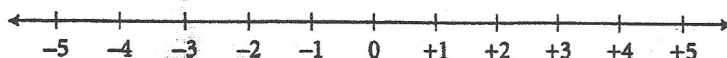
Move 13 units to the right.



$$(-7) + (+13) = +6$$

### Practice

1. Use the number line to add  $(+3) + (-7)$ .



Start at 0. Move 3 units right.

Move \_\_\_\_\_ units left.

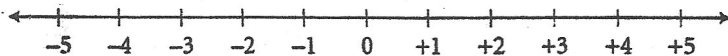
So,  $(+3) + (-7) =$  \_\_\_\_\_

### KEY TO SUCCESS

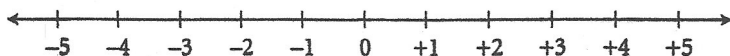
If you know different methods, you can solve a problem in one way, and check the answer in another way.

2. Use the number line to add.

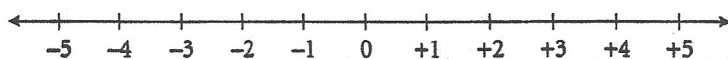
a)  $(+4) + (-5) = \underline{\hspace{2cm}}$



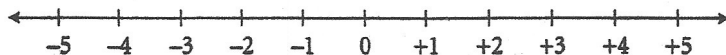
b)  $(-2) + (-2) = \underline{\hspace{2cm}}$



c)  $(-4) + (+8) = \underline{\hspace{2cm}}$



d)  $(-1) + (+2) = \underline{\hspace{2cm}}$



**HINT**

To add positive integers, move right.  
To add negative integers, move left.



3. Add.

a)  $(+4) + (+7) = \underline{\hspace{2cm}}$

b)  $(-2) + 0 = \underline{\hspace{2cm}}$

c)  $(+9) + (-5) = \underline{\hspace{2cm}}$

d)  $(-10) + (+3) = \underline{\hspace{2cm}}$

4. Match each addition statement with its sum. The first one is done for you.

$(-6) + (-5)$

+11

$(-6) + (+5)$

-11

$(+6) + (-5)$

+1

$(+6) + (+5)$

-1

5. Add, using a method of your choice.  
Use a different method to check your work.

a)  $(-1) + (+5) = \underline{\hspace{2cm}}$

b)  $(-8) + (+2) = \underline{\hspace{2cm}}$

c)  $(-8) + (-6) = \underline{\hspace{2cm}}$

d)  $(+2) + (-5) = \underline{\hspace{2cm}}$

6. Kim earned \$24 baby-sitting.  
He spent \$7 buying lunch at school.

How much does Kim have left?                     

7. Create a problem that can be solved using integer addition.

Show the solution.

Here are some possible ideas.

- temperature change
- elevation change
- bank balance

---

---

---

---

8. Play this game with 2 to 4 people.

You will need a deck of cards with face cards removed, paper, and pencil.

Red cards are negative. Black cards are positive.

Deal 2 cards to each player.

- Players find the sum of their 2 numbers.
- If a player has a sum of 0, he or she is "out."
- Each remaining player takes 1 card from the deck.  
Add this number to the previous sum.
- Any player with a total of 0 is "out."
- Play continues until 1 player remains.
- The last player in the game wins.