

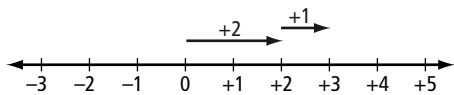
Get Ready

Adding Integers

Use a number line to add integers.

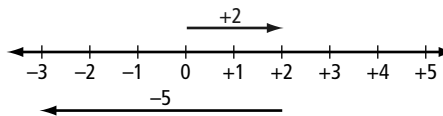
Positive or negative whole numbers and zero: ...-2, -1, 0, 1, 2...

$$(+2) + (+1) = +3$$



- Begin at 0.
 - To show +2, move right 2 ticks.
 - To show +1, move right 1 tick.
- $$(+2) + (+1) = +3$$

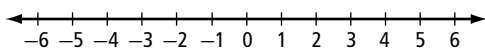
$$(+2) + (-5) = -3$$



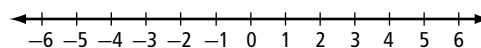
- Begin at 0.
 - To show +2, move right 2 ticks.
 - To show (-5), move left 5 ticks.
- $$(+2) + (-5) = -3$$

1. Solve. Use the number line to help you.

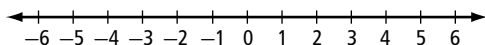
a) $(+1) + (+4) = \underline{\hspace{2cm}}$



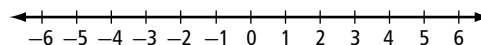
b) $(-3) + (+7) = \underline{\hspace{2cm}}$



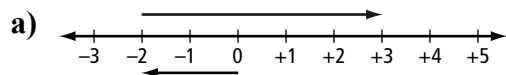
c) $(+5) + (-2) = \underline{\hspace{2cm}}$

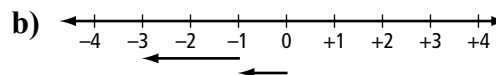


d) $(-3) + (-2) = \underline{\hspace{2cm}}$



2. What addition statement does each number line show?





Subtracting Integers

Add the opposite to subtract integers.

$$\begin{aligned} & (+5) - (-2) \\ & = (+5) + (+2) \\ & = +7 \end{aligned}$$

The opposite of +2 is -2.

$$\begin{aligned} & (-3) - (+1) \\ & = (-3) + (-1) \\ & = -4 \end{aligned}$$

The opposite of +1 is -1.

3. What is the opposite of each integer?

a) -5 _____

b) +4 _____

4. Solve.

a) $5 - (+2)$

$= 5 + (\text{_____})$

$= \text{_____}$

What is the opposite of +2?

b) $(+3) - (-1)$

Using Expressions



expression

- a number *or* letter *or* combination of numbers and letters connected by +, -, ×, or ÷

numerical coefficient

- a number that multiplies the variable

variable

- a letter that represents an unknown number or amount

constant

- a number that is not connected to a variable

Write an **expression** to show a word statement.

The length of a rectangle is 2 more than triple its width.

Let the width be w . Length = $3w + 2$.

numerical coefficient

variable

constant

$3w$ means $3 \times w$

5. Complete the table.

Expression	Numerical Coefficient	Variable	Constant
a) $2x - 7$			
b) $-3b + 5$			
c) $t - 4$			

6. Write an expression for each statement. Tell what the variable represents.

a) Sarah is 5 years younger than her sister.

variable: sister's age = s

Sarah's age = _____

b) The length of the rectangle is twice the width.

variable: _____

length = _____