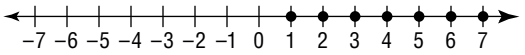
NAME _____ DATE _____

# Study Guide

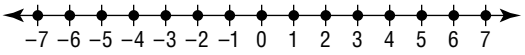
Student Edition
Pages 72–77

## Integers and the Number Line

The figure at the right is part of a number line. On a number line, the distances marked to the right of 0 are named by members of the set of **whole numbers.**

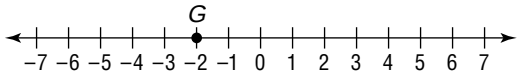



The set of numbers used to name the points marked on the number line at the right is called the set of **integers.**




To graph a set of numbers means to locate the points named by those numbers on the number line. The number that corresponds to a point on the number line is called the **coordinate** of the point.

Name the coordinate of point $G$.

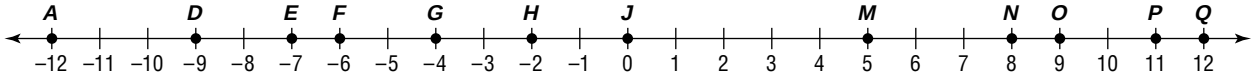



The coordinate of $G$ is $-2$.

A number line is often used to show addition of integers. For example, to find the sum of 3 and $-5$, follow the steps at the right.

**Step 1** Draw an arrow, starting at 0 and going to 3.
**Step 2** Start at 3. Draw an arrow 5 units to the left.
**Step 3** The second arrow points to the sum, $-2$.

### *Name the coordinate of each point.*

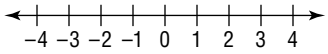



**1.** $M$ **2.** $Q$ **3.** $H$ **4.** $E$ **5.** $J$ **6.** $A$

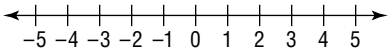
**7.** $G$ **8.** $P$ **9.** $F$ **10.** $N$ **11.** $O$ **12.** $D$

### *Graph each set of numbers on a number line.*

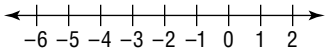
**13.** $\{-3, -1, 1, 3\}$



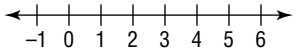

**14.** $\{-5, -2, 1, 4\}$



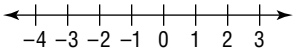

**15.** {integers less than 0}



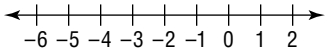

**16.** $\{0, 1, 3, 5\}$




**17.** $\{-3, -2, 2\}$




**18.** $\{\cdots, -2, -1, 0, 1\}$




### *Find each sum. If necessary, use a number line.*

**19.** $2 + 3$ **20.** $9 + 1$ **21.** $-5 + (-1)$

**22.** $-10 + 6$ **23.** $9 + (-9)$ **24.** $0 + (-4)$

**25.** $-8 + (-3)$ **26.** $6 + (-10)$ **27.** $-6 + 6$