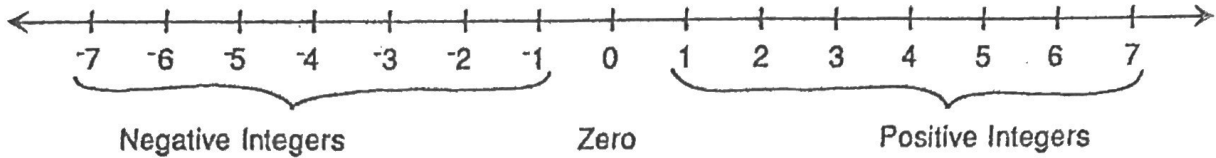


**Integers**

Integers are a lot like the whole numbers that you already know. The main difference is that there are **negative Integers** as well as **positive Integers**. Zero is also an integer. Here is one way we can picture the set of integers:



As you can see, the negative integers are to the left of zero. We use a little raised minus sign to show that an integer is negative. Sometimes we use a little raised plus sign to show that an integer is positive, but we usually don't use any sign at all when the integer is positive. Zero is neither positive nor negative.

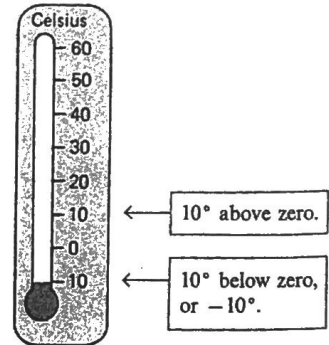


- 1) Place 0 on the number line near the center.
- 2) Write in the numbers 5, -1, -5, 2, and -8.

Words that are used with integers: above, below, gain, loss, greater, less, positive, and negative.

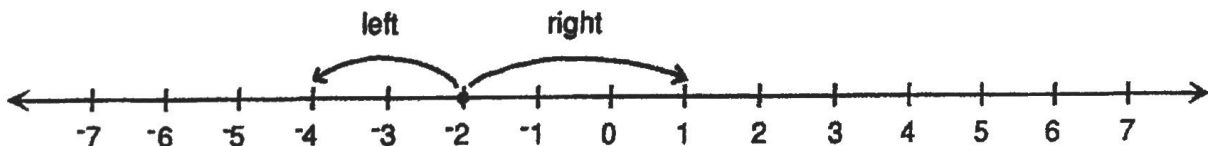
Words that mean POSITIVE (+):

Words that mean NEGATIVE (-):



**Comparing Integers**

By looking at the number line we can easily tell which integers are **greater (larger)** than a certain number and which are **less (smaller)** than the number.



1 is greater than -2 because it is to the *right* of -2.  
 -4 is less than -2 because it is to the *left* of -2.

1 is greater than -2 is written:  $1 > -2$

-4 is less than -2 is written:  $-4 < -2$

Use a  $<$  or  $>$  to compare these numbers.

1)  $-3 \underline{\hspace{1cm}} 0$

2)  $-2 \underline{\hspace{1cm}} 3$

3)  $5 \underline{\hspace{1cm}} 0$

4)  $-1 \underline{\hspace{1cm}} -4$

5)  $5 \underline{\hspace{1cm}} -2$

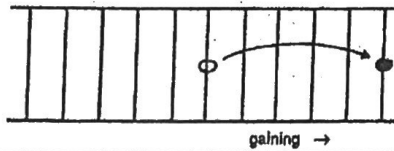
6)  $-5 \underline{\hspace{1cm}} -2$

### Showing Gains and Losses

You can also use integers to show gains and losses. Positive integers show gains, and negative integers show losses. Zero is used if there is no change. Here is how we can use integers to show gains and losses in a football game:

We gained 5 yards.

5

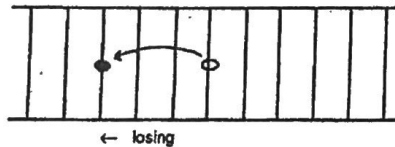


positive 5

5

We lost 3 yards.

-3

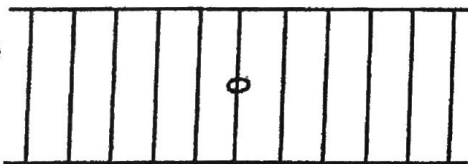


negative 3

-3

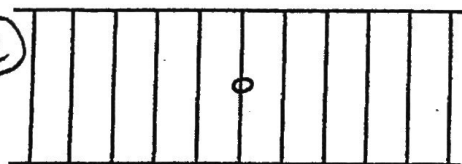
You show the following gains and losses.

①



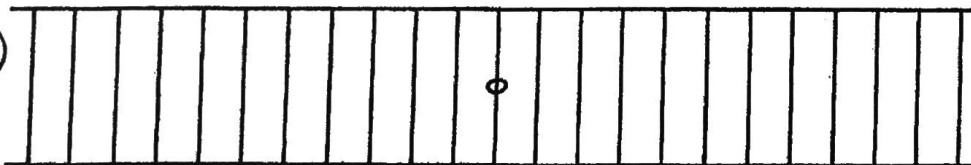
We gained 4 yards.

②



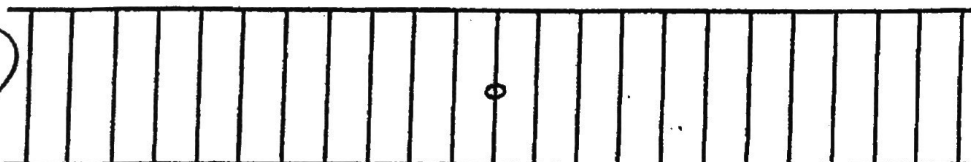
We lost 5 yards.

③



We gained 2 yards and then gained 6 more yards.

④



We gained 5 yards and then lost 8 yards.