

6. Whilst on safari in Kenya, I noticed the temperature rose from  $-6^{\circ}\text{C}$  at night to  $43^{\circ}\text{C}$  in late morning.

By how much had the temperature risen?



7. Chris made a large batch of chilli con carne and put it in the freezer. Its temperature fell by a steady amount each hour. It started at  $9^{\circ}\text{C}$  and fell to  $5^{\circ}\text{C}$  in one hour.



What would the temperature be after :-

- a 2 hours                      b 3 hours  
c 4 hours                      d 10 hours?

8. Write each set of temperatures in order, **coldest** first :-

- a  $18^{\circ}\text{C}$ ,  $-2^{\circ}\text{C}$ ,  $-21^{\circ}\text{C}$ ,  $0^{\circ}\text{C}$ ,  $1^{\circ}\text{C}$ ,  $-1^{\circ}\text{C}$ .  
b  $-36^{\circ}\text{C}$ ,  $-9^{\circ}\text{C}$ ,  $-17^{\circ}\text{C}$ ,  $-58^{\circ}\text{C}$ ,  $2^{\circ}\text{C}$ ,  $-2^{\circ}\text{C}$ .



### Adding and Subtracting Negative Numbers

*Be able to add and subtract negative numbers*

When adding or subtracting negative numbers, draw a thermometer, or at least imagine one!

**Example 1 :-**

$$3 + 9$$

Imagine the **3** on a thermometer.

Now do the "**+9**" by going **up** 9.

$$3 + 9 = 12$$

**Example 2 :-**

$$4 + (-9)$$

Imagine the **4** on a thermometer.

Now do the "**+(-9)**" by going **down** 9.

$$4 + (-9) = -5$$

**Example 3 :-**

$$4 - 11$$

Imagine the **4** on a thermometer.

Now do the "**-11**" by going **down** 11.

$$4 - 11 = -7$$

### Exercise 3

Use the thermometer shown to help you with this exercise.

1. Write down each question first, then the answer :-

- |                 |                  |               |                  |
|-----------------|------------------|---------------|------------------|
| a $7 + 8$       | b $4 + 12$       | c $0 + 14$    | d $7 + (-5)$     |
| e $9 + (-2)$    | f $13 + (-13)$   | g $4 + (-7)$  | h $2 + (-8)$     |
| i $0 + (-16)$   | j $(-3) + 11$    | k $(-6) + 6$  | l $(-4) + 21$    |
| m $(-9) + 3$    | n $(-22) + 14$   | o $6 + (-15)$ | p $(-4) + (-18)$ |
| q $(-9) + (-9)$ | r $(-5) + (-17)$ | s $(-18) + 7$ | t $(-19) + 13$ . |

