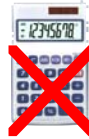
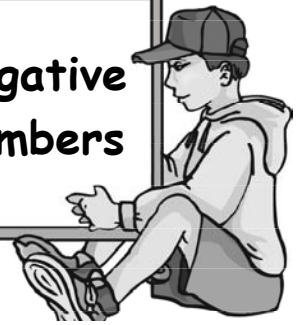


# CHAPTER 8

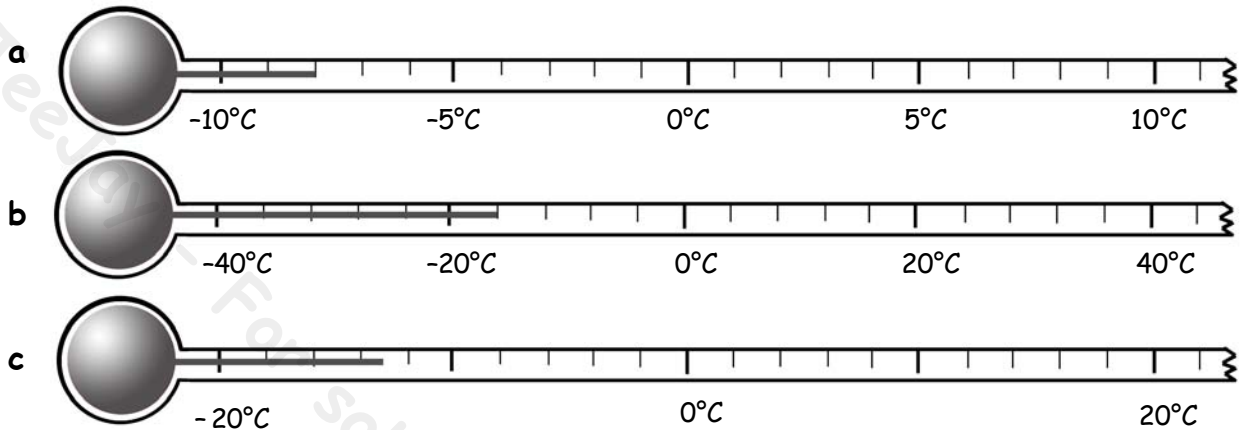
## Exercise 1



## Negative Numbers



1. What temperatures are shown below ?



2. a Nicola's online banking account shows that she has (£310).  
She withdraws £312 from the account. What will her balance show as now ?
- b Last month, Aaron's bank balance stood at (-£230.00).  
He withdrew a further £75. What was his balance then ?
- c Jed's online banking account shows that he has (£39.65).  
He buys a jacket with a debit card for £29.50 and signs a cheque for £12.35 to buy a tie.  
He later goes on to his online account. What will his statement be showing ?
- d Julia's balance last week was (-£72). She used her debit card for £90 on the same day as her monthly pay of £899 was paid into her bank.  
What was her new balance ?




## Exercise 2

1. What is the temperature that is :-

- |                      |                       |                         |
|----------------------|-----------------------|-------------------------|
| a 6°C up from 14°C   | b 19°C up from 0°C    | c 22°C up from 7°C      |
| d 9°C down from 15°C | e 13°C down from 23°C | f 5°C up from -1°C      |
| g 8°C down from -2°C | h 13°C up from -5°C   | i 8°C down from 1°C     |
| j 15°C down from 0°C | k 14°C up from -9°C   | l 15°C down from -8°C ? |

2. One winter's day in Peebles, the temperature was  $-7^{\circ}\text{C}$ .  
In Dingwall it was  $5^{\circ}$  colder.  
What was the temperature in Dingwall ?



3.  Whilst on holiday in Africa, I noticed the temperature fell from  $41^{\circ}\text{C}$  late morning to  $-7^{\circ}\text{C}$  in the evening.  
By how much had the temperature fallen ?

4. Write each set of temperatures in order, **coldest** first :-  
a  $9^{\circ}\text{C}$ ,  $-7^{\circ}\text{C}$ ,  $-19^{\circ}\text{C}$ ,  $0^{\circ}\text{C}$ ,  $7^{\circ}\text{C}$ ,  $-3^{\circ}\text{C}$ .  
b  $-31^{\circ}\text{C}$ ,  $-10^{\circ}\text{C}$ ,  $-18^{\circ}\text{C}$ ,  $-38^{\circ}\text{C}$ ,  $1^{\circ}\text{C}$ ,  $-1^{\circ}\text{C}$ .

### Exercise 3

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

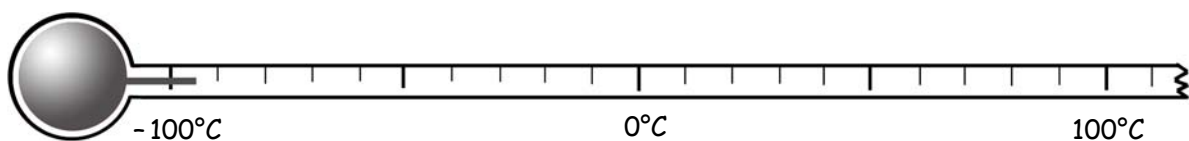
- |                   |                  |                |                  |
|-------------------|------------------|----------------|------------------|
| a $9 + 7$         | b $6 + 14$       | c $11 + 19$    | d $8 + (-6)$     |
| e $7 + (-6)$      | f $15 + (-14)$   | g $6 + (-9)$   | h $3 + (-11)$    |
| i $0 + (-17)$     | j $(-3) + 16$    | k $(-8) + 8$   | l $(-5) + 23$    |
| m $(-8) + 5$      | n $(-21) + 13$   | o $6 + (-19)$  | p $(-3) + (-16)$ |
| q $(-10) + (-10)$ | r $(-2) + (-16)$ | s $(-19) + 11$ | t $(-17) + 12$   |

2. Calculate :-

- |                           |                             |                          |
|---------------------------|-----------------------------|--------------------------|
| a $5 + (-2) + 4$          | b $5 + (-9) + 2$            | c $(-8) + 4 + 3$         |
| d $6 + (-9) + (-2)$       | e $(-5) + (-1) + 7$         | f $(-7) + (-4) + (-8)$   |
| g $4 + (-24) - 20$        | h $-200 - 400 - 600$        | i $4 + 6 + (-8) + (-12)$ |
| j $19 + (-21) + 7 + (-6)$ | k $(-2) + (-4) + (-9) + 15$ | l $90 + (20 - 30 - 40)$  |

### Revision Exercise

1. What temperature is shown below ?



2. Albert's bank balance last month was (–£530).

His monthly wage of £1886 was then paid in, but he also paid his monthly TV/internet bill of £125.

What is Albert's new bank balance ?



- 3.



Daisy had £190 in her bank account before the weekend.

She withdrew £80 on Friday night and £120 while shopping on Saturday afternoon. She deposited £35 on Monday morning.

Write down Daisy's new bank balance.

4. Find :-

- |                   |                  |                 |                  |
|-------------------|------------------|-----------------|------------------|
| a $7 + (-3)$      | b $12 + (-12)$   | c $(-1) + 11$   | d $(-4) + 13$    |
| e $(-15) + (-15)$ | f $(-6) + (-16)$ | g $(-25) + 27$  | h $(-102) - 103$ |
| i $(-1) - 8$      | j $-13 - 20$     | k $(-27) + 18$  | l $(-112) + 107$ |
| m $(-1) - 1$      | n $-25 - 5$      | o $(-19) + 27$  | p $(-106) + 109$ |
| q $(-200) - 100$  | r $-300 - 34$    | s $(-502) + 12$ | t $(-703) + 103$ |

5. The temperature at midday on a beach in Portugal was  $36^{\circ}\text{C}$ . At midnight it had fallen to  $-4^{\circ}\text{C}$ .

By how many degrees had the temperature fallen ?



- 6.



The coldest temperature ever recorded in England was  $-26^{\circ}\text{C}$ . (Newport Jan. 1982).

The warmest recorded was  $38^{\circ}\text{C}$  (Gravesend Aug. 2003).

Calculate the difference in temperature.

7. Calculate :-

- |                           |                             |                            |
|---------------------------|-----------------------------|----------------------------|
| a $7 + (-9) + 2$          | b $5 + (-10) + 7$           | c $(-1) + 7 - 8$           |
| d $0 - 11 + 11$           | e $(-8) + (-6) + 12$        | f $(-13) + (-7) + 24$      |
| g $47 - 48 - 2$           | h $-23 - 9 + 31$            | i $-40 - 30 - 10$          |
| j $8 + (-7) + 9 + (-6)$   | k $(-1) + (-5) + (-7) + 18$ | l $(-8) + 4 + (-3) + 6$    |
| m $-2 - 5 + 3 - 11$       | n $-4 + 5 + 12 - 13$        | o $-21 + 30 - 20 + 8$      |
| p $18 + (-22) + 8 + (-7)$ | q $-2 - 6 - 8 + 11$         | r $-1 - 1 - 11 + 111$      |
| s $18 + (9 - 12 - 1)$     | t $50 - (20 + 10 - 25)$     | u $120 - (-80 - 20 + 110)$ |