Negative Numbers

1. Write down the value of :–

   (a) 3 + (-4)   (b) -3 + 5   (c) 5 – 3   (d) -6 + 8

   (e) -3 – 5   (f) 3x + (-4x)   (g) -5x + 8x   (h) -8x – 11x

   (i) 8 –(-3)   (j) -2 – (-5)   (k) 2p – (-2p)   (l) 0 – (-3x).

2. Find :–

   (a) (-2) x 3   (b) 6 x (-3)   (c) 10 x 11   (d) (-6) x 5

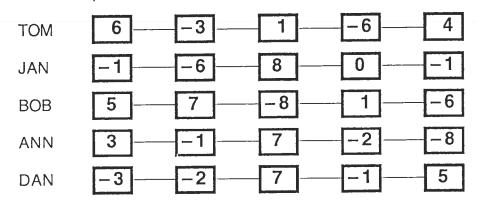   (e) 4a x (-2)   (f) -4 ÷ 2   (g) 8x ÷ (-4).

3. In a competition, you have to turn 5 cards and add up the numbers.
   The person with the <u>lowest</u> total wins.

   Work out each person's total and decide who won.

   TOM | 6 |—| −3 |—| 1 |—| −6 |—| 4 |

   JAN | −1 |—| −6 |—| 8 |—| 0 |—| −1 |

   BOB | 5 |—| 7 |—| −8 |—| 1 |—| −6 |

   ANN | 3 |—| −1 |—| 7 |—| −2 |—| −8 |

   DAN | −3 |—| −2 |—| 7 |—| −1 |—| 5 |

4. Temperatures were taken around Scotland on particular days last winter.
   In the early morning and again at midday.

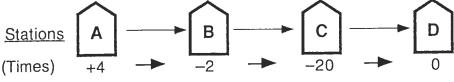   Calculate the change in temperature and state where the largest change took place :–

Glasgow −4°C ➤ 5°C	Aberdeen −7°C ➤ −1°C
Stranraer 0°C ➤ 8°C	Gourock −4°C ➤ 6°C
Perth −6°C ➤ 1°C	Islay −1°C ➤ 7°C.

5. The station masters at each of the stations below take a careful note of whether the trains
   are "keeping to time" or not. They record the times as +9 for 9 minutes ahead of time,
   but –2 for 2 minutes behind time.
   Shown below are the times during one such train journey from station A to D :–

   Stations   A ➜ B ➜ C ➜ D

   (Times)   +4 ➜ −2 ➜ −20 ➜ 0

   (a)   Was the train ahead or behind at station A ?
   (b)   Describe what happened between A and B.
   (c)   How many minutes did the train fall further behind between B and C ?
   (d)   Did the train arrive at D on time ?   Explain !

Answers

Negative Numbers

1. (a) -1   (b) 2   (c) 2   (d) 2   (e) -8   (f) -x
   (g) 3x   (h) -19x   (i) 11   (j) 3   (k) 4p   (l) 3x.

2. (a) -6   (b) -18   (c) 110   (d) -30   (e) -8a
   (f) -2   (g) -2x.

3. Tom — (2), Jan — (0), Bob — (-1), Ann — (-1), Dan — (6). (Bob and Ann are joint winners).

4.
   Glasgow   – Rise of 9°C   Aberdeen   – Rise of 6°C
   Stranraer   – Rise of 8°C   Gourock   – Rise of 10°C (Largest rise)
   Perth   – Rise of 7°C   Islay   – Rise of 8°C.

5. (a) Ahead   (b) Lost 6 minutes   (c) 18 minutes   (d) Yes (Made up 20 mins C ⟶ D).