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Extra questions

Exercise 2.4 Integers on the number line

1 Find the answers to these additions.

    a $6 + 9$ **b** $8 + {}^-9$ **c** $8 + {}^-5$ **d** $8 + {}^-15$ **e** ${}^-2 + 2$

    f ${}^-2 + 5$ **g** ${}^-4 + {}^-7$ **h** ${}^-2 + {}^-2$ **i** ${}^-8 + {}^-18$ **j** $8 + 12$

2 Find the answers to these subtractions.

    a $4 - 2$ **b** $13 - 12$ **c** $2 - 13$ **d** $5 - {}^-1$ **e** $7 - {}^-5$

    f ${}^-3 - {}^-2$ **g** ${}^-5 - {}^-5$ **h** ${}^-5 - 5$ **i** ${}^-6 - 4$ **j** ${}^-3 - {}^-8$

3 Work out the answer to each of these. Use a number line if you are unsure.

    a ${}^-3 + {}^-3 + {}^-4$ **b** ${}^-3 + 3 + {}^-4$ **c** ${}^-3 + {}^-3 + 4$

    d $5 + {}^-5 + {}^-7 + 7$ **e** $5 + {}^-5 + {}^-7 + {}^-7$ **f** ${}^-5 + {}^-5 + {}^-7 + 7$

    g $9 + {}^-2 + 2 + {}^-8 + {}^-9$

4 Work out the answer to each of these. Use a number line if you are unsure.

    a $1 + {}^-9 + 9 + {}^-10 + {}^-1$ **b** ${}^-4 + {}^-7 + {}^-6 + 7 + {}^-4$ **c** $4 + {}^-7 + {}^-6 + {}^-7 + {}^-4$

    d $6 - 9 + 4 - 11$ **e** ${}^-1 + {}^-2 + {}^-3 + {}^-4 + {}^-5 + {}^-6$ **f** $7 - 10 + 6 - 5$

    g ${}^-13 + 20 - 4 + 10 - 6$

5 Find the missing number for each of the following.

    a $7 + \underline{\hspace{2cm}} = 0$ **b** ${}^-3 + \underline{\hspace{2cm}} = 0$

    c ${}^-3 + \underline{\hspace{2cm}} = {}^-6$ **d** ${}^-8 + 1 = \underline{\hspace{2cm}}$

    e $5 + \underline{\hspace{2cm}} = 12$ **f** ${}^-5 + \underline{\hspace{2cm}} = {}^-12$

    g $10 + \underline{\hspace{2cm}} = 4$ **h** ${}^-10 + \underline{\hspace{2cm}} = {}^-4$

    i $\underline{\hspace{2cm}} + {}^-2 = 18$ **j** $\underline{\hspace{2cm}} + {}^-2 = {}^-18$

    k $\underline{\hspace{2cm}} + 7 = {}^-2$ **l** $\underline{\hspace{2cm}} + {}^-7 = {}^-2$

6 The temperature was 8°C twelve hours ago. Now it is ${}^-2$°C.

    a Has the temperature gone up or down?

    b By how many degrees has the temperature changed?

7 Misty was in a lift and went down from the 18th floor of her office building to the car park three floors below ground. How many floors did she go down?

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Answers

1 **a** 15 **b** $^-1$ **c** 3

    d $^-7$ **e** 0 **f** 3

    g $^-11$ **h** $^-4$ **i** $^-26$

    j 20

2 **a** 2 **b** 1 **c** $^-11$

    d 6 **e** 12 **f** $^-1$

    g 0 **h** $^-10$ **i** $^-10$

    j 5

3 **a** $^-10$ **b** $^-4$ **c** $^-2$

    d 0 **e** $^-14$ **f** $^-10$

    g $^-8$

4 **a** $^-10$ **b** $^-14$ **c** $^-20$

    d $^-10$ **e** $^-21$ **f** $^-2$

    g 7

5 **a** $^-7$ **b** 3 **c** $^-3$

    d $^-7$ **e** 7 **f** $^-7$

    g $^-6$ **h** 6 **i** 20

    j $^-16$ **k** $^-9$ **l** 5

6 **a** Down **b** 10°

7 21

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