1 What are the missing numbers on these number lines?
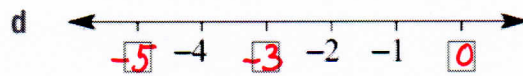
a
-3 [-2] -1 0 1 [2] 3

b
-2 -1 [0] 1 [2] 3

c
-10 -9 -8 [-7] -6 [-5]

d
[-5] -4 [-3] -2 -1 [0]
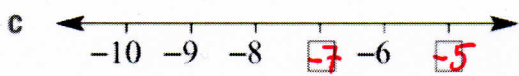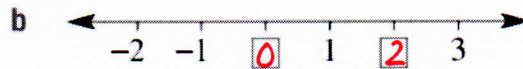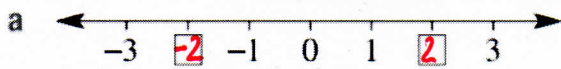
2 -5 is the opposite number of 5, and 5 is the opposite number of -5. Write down the opposite to these numbers.

a 2 -2 **b** 6 -6 **c** -3 3 **d** -7 7

e -15 15 **f** 21 -21 **g** 132 -132 **h** -1071 1071

3 Fill in the blanks using the words *greater* and *less*.

a 5 is __greater__ than 0 **b** -3 is __less__ than 0

c 0 is __greater__ than -6 **d** 0 is __less__ than 1

4 Draw a number line for each description, showing all the given integers.

a from -2 to 2 **b** from -5 to 1
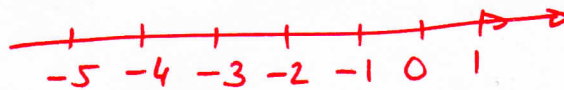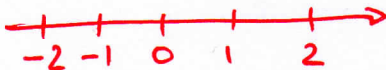
-2 -1 0 1 2

-5 -4 -3 -2 -1 0 1

5 List all the integers that fit the given description.

a from -2 up to 4 **b** from -7 up to 0

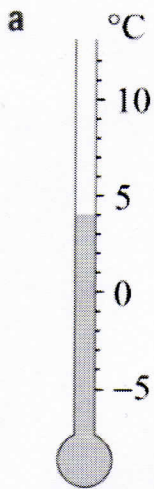$-2, -1, 0, 1, 2, 3, 4$ $-7, -6, -5, -4, -3, -2, -1, 0$

6 Insert the symbol < (is less than) or > (is greater than) into these statements to make them true.
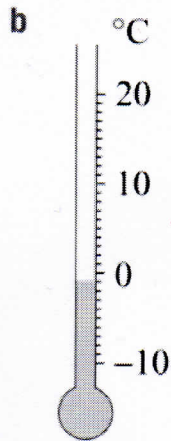
a 7 [<] 9 **b** 3 [>] 2 **c** 0 [>] -2 **d** -4 [<] 0

i -3 [<] 3 **j** 3 [>] -3 **k** -130 [<] 1 **l** -2 [>] -147

7 Give the temperature for these thermometers.

a °C   **b** °C   **c** °C   **d** °C
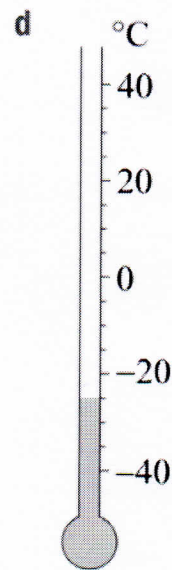
a: *4°C*

b: *-1°C*

c: *-7°C*
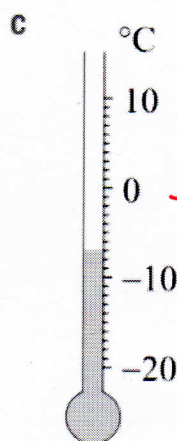
d: *-25°C*

8 Arrange these numbers in *ascending* order.

a $-3, -6, 0, 2, -10, 4, -1$
$-10 < -6 < -3 < -1 < 0 < 2 < 4$

b $-304, 126, -142, -2, 1, 71, 0$
$-304 < -142 < -2 < 0 < 1 < 71 < 126$

9 Write the next three numbers in these simple patterns.

a $3, 2, 1,$ *$0, -1, -2$*

b $-8, -6, -4,$ *$-2, 0, 2$*

c $10, 5, 0,$ *$-5, -10, -15$*

d $-38, -40, -42,$ *$-44, -46, -48$*

10 These lists of numbers show deposits (positive numbers) and withdrawals (negative numbers) for a month of bank transactions. Find the balance at the end of the month.
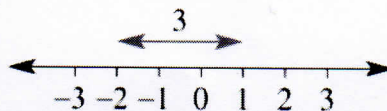
a Starting balance $200
       −$10
       −$130
       $25
       −$100
       $20
       Final balance *5*

b Starting balance $0
       $50
       −$60
       −$100
       $200
       −$100
       Final balance *−10*

12 The difference between two numbers could be thought of as the distance between the numbers on a number line. For example, the difference between −2 and 1 is 3.

Find the difference between these pairs of numbers.

a −1 and 1 *2*   **b** −2 and 2 *4*   **c** −3 and 1 *4*   **d** −4 and 3 *7*

e −3 and 0 *3*   **f** −4 and −1 *3*   **g** −10 and −4 *6*   **h** −30 and 14 *44*