

Year 4: Negative numbers: counting back through zero: answers

Year 4 - Place Value - Lesson 1.5

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/ks2-sats/maths/year-4/ch01-place-value/negative-numbers-counting-back-through-zero/

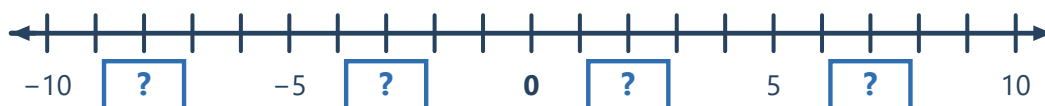
Exercise 1E Negative numbers Non-calculator

1 What temperature does the thermometer show?



Answer: -3°C

2 Write the missing numbers in the boxes on the number line.



Answer: $-8, -3, 2, 7$

3 Count on or back. Write the next numbers each time.

(a) Count back in 2s from 7. Write 5 numbers.

Answer: 5, 3, 1, -1 , -3

(b) Count back in 5s from 20. Write 5 numbers.

Answer: 15, 10, 5, 0, -5

(c) Count on in 3s from -10 . Write 5 numbers.

Answer: -7 , -4 , -1 , 2, 5

- (d) Count back in 10s from 40. Write 6 numbers.

Answer: 30, 20, 10, 0, -10, -20

4 Write $<$ or $>$ in each box.

- (a) -3 [?] 2

Answer: $-3 < 2$

- (b) -7 [?] -4

Answer: $-7 < -4$

- (c) 0 [?] -1

Answer: $0 > -1$

- (d) -10 [?] -12

Answer: $-10 > -12$

- (e) -5 [?] 5

Answer: $-5 < 5$

- (f) -8 [?] -18

Answer: $-8 > -18$

5 Write each set of numbers in order.

- (a) 3, -5, 0, -8, 2 (smallest first)

Answer: -8, -5, 0, 2, 3

- (b) -12, -2, 7, -7, 12 (smallest first)

Answer: -12, -7, -2, 7, 12

- (c) -4, -14, 4, -41, 14 (biggest first)

Answer: 14, 4, -4, -14, -41

6 What is the new temperature?

- (a) It is 5°C . It falls by 8°C .

Answer: -3°C

- (b) It is -2°C . It rises by 6°C .

Answer: 4°C

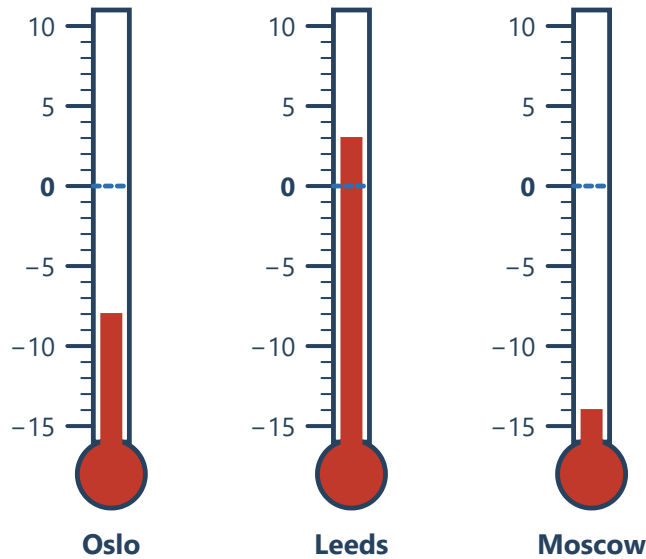
- (c) It is -4°C . It falls by 3°C .

Answer: -7°C

- (d) It is -9°C . It rises by 9°C .

Answer: 0°C

7 The thermometers show the temperatures in three cities one morning.



(a) Which city is the coldest?

Answer: Moscow

(b) How many degrees warmer is Leeds than Oslo?

Answer: 11°C

(c) How many degrees colder is Moscow than Oslo?

Answer: 6°C

8 Find the difference between the two temperatures.

(a) -2°C and 7°C

Answer: 9°C

(b) -8°C and -3°C

Answer: 5°C

(c) -6°C and 4°C

Answer: 10°C

(d) 5°C and -9°C

Answer: 14°C

9 In a shop the floors below the ground floor are negative numbers (floor -1 is the first basement). The lift is on floor 2. It goes down 5 floors. Which floor is the lift on now?

Answer: -3

10 A diver is 12 metres below the surface of the sea, which is at -12 m. She swims up 5 m and then dives down 9 m. What is her position now?

Answer: -16 m

11 Priya says, “ -9 is bigger than -2 because 9 is bigger than 2.” Is she right? Explain.

Answer: No. -9 is less than -2 .

12 Is this always, sometimes or never true?

"A two-digit negative number is smaller than a one-digit negative number."

Answer: Always

13 Which of these temperatures are colder than -6°C ? 3°C , -9°C , -2°C , -6°C , -10°C

Answer: -9°C and -10°C

14 At midnight the temperature is -4°C . It rises by 3°C every hour.

(a) What is the temperature after 2 hours?

Answer: 2°C

(b) After how many hours is the temperature first above 0°C ?

Answer: 2 hours

(c) After 3 hours the temperature falls by 5°C . What is the temperature then?

Answer: 0°C