

# **MATHS**

# **BOOKS - NCERT EXEMPLAR**

# **INTEGERS**

# **Solved Examples**

1. Write the correct answer from the given four

options: Sania and Trapi visited Leh and

Tawang respectively during winter. Sania

reported that she had experienced  $-4^\circ C$  on Sunday, while Trapi reported that she had experienced  $-2^\circ C$  on that day. On that Sunday

- A. Leh was cooler than Tawang.
- B. Leh was hotter than Tawang.
- C. Leh was as cool as Tawang.
- D. Tawang was cooler than Leh.

## **Answer: A**



**2.** State whether each of the following statements is true or false:

Every positive integer is greater than 0.



**Watch Video Solution** 

**3.** State whether each of the following statements is true or false:

Every integer is either positive or negative.



**4.** Fill in the blank using < , > or = to make the statement correct

$$3 + (-2)_{2} + (-3)$$



**Watch Video Solution** 

**5.** Represent the following using integers with proper sign :

3 km above sea level



**6.** Represent the following using integers with

proper sign:

A loss of Rs 500



**Watch Video Solution** 

7. Find the sum of the pairs of integers:

-6 - 4



8. Find the sum of the pairs of integers:

$$+3, -4$$



**Watch Video Solution** 

9. Find the sum of the pairs of integers:

$$+4, -2$$



**10.** Find the sum of -2 and -3, using the number line

- A.-5
- B.5
- $\mathsf{C.}-6$
- D. 0

**Answer: A** 



**11.** Subtract : (i) 3 from -4 (ii) -3 from -4



Watch Video Solution

- 12. Using the number line, subtract: (a) 2 from
- -3

(b) -2 from -3.



**Watch Video Solution** 

**13.** How many integers are there between -9

and -2?

14. Calculate:

$$1-2+3-4+5-6+7-8+9-10$$



**15.** The dum of two integers is 47. If one of the integers is -24, find the other.



**16.** Write the digits 0,1,2,3,4,5,6,7,8 and 9 in this order and insert '+' or '-' between them to get the result

(a) 5 (b) -3



**Watch Video Solution** 

17. Write five distinct integers whose sum is 5.



# Exercise Only One Of The Four Options Is Correct Write The Correct One

1. Every integer less than 0 has the sigh

A. +

B. -

 $\mathsf{C.} \times$ 

D. ÷

**Answer: B** 



2. The integer '5 units to the right of 0 on the number line' is

$$A. + 5$$

$$B. - 5$$

$$C.+4$$

$$D.-4$$

## **Answer:**



**3.** The predecessor of the integer -1 is

A. 0

B. 2

 $\mathsf{C.}-2$ 

D. 1

**Answer: C** 



**4.** Number of integers lying between -1 and 1 is

**A.** 1

B. 2

C. 3

D. 0

**Answer: D** 



5. Number of whole numbers lying betwee	<b>5.</b>	Number	of	whole	numbers	lying	between
---	-----------	--------	----	-------	---------	-------	---------

-5 and 5 is

A. 10

B. 3

C. 4

D. 5

## **Answer:**



**6.** The greatest integer lying between -10 and -15 is

A. - 10

B. - 11

C. -15

D. - 14

#### **Answer:**



**7.** The least integer lying between -10 and

-15 is.

A. -10

B. - 11

 $\mathsf{C.}-15$ 

D. - 14

**Answer:** 



8. On the number line, the integer 5 is located

A. to the left of 0

B. to the right of 0

C. to the left of 1

D. to the left of -2

#### **Answer:**



**9.** In which of the following pairs of integers, the first integer is not on the left of the other integer on the number line?

- A. (-1, 10)
- B. (-3, -5)
- C. (-5, -3)
- D. (-6, 0)

#### **Answer:**



10. The integer with negative sign (-) is always

less than

A. 0

B.-3

C. -1

D.-2

#### **Answer:**



**11.** An integer with positive sign (+) is always greater than

A. 0

B. 1

C. 2

D. 3

### **Answer:**



12. The successor of the predecessor of -50 is

A. - 48

B. - 49

 $\mathsf{C.}-50$ 

D. - 51

#### **Answer:**



# 13. The additive inverse of a negative integer

A. is always negative

B. is always positive

C. is the same integer

D. zero

## **Answer: B**



**14.** Amulya and Amar visited two places A and B respectively in Kashmir and recorded the minimum temperatures on a particular day as  $-4^{\circ}C$  at A and  $-1^{\circ}C$  at B. Which of the following statement is true?

- A. A is cooler than B
- B. B is cooler than A

temperature

C. There is a difference of  $2^{\circ}C$  in the

D. The temperature at A is  $4^{\circ}C$  higher than that at B.

## **Answer:**



**Watch Video Solution** 

**15.** When a negative integer is subtracted from another negative integer, the sign of the result

A. is always negative

- B. is always positive
- C. is never negative
- D. depends on the numerical value of the integers

#### **Answer:**



**Watch Video Solution** 

**16.** The statement "When an integer is added to itself, the sum is greater than the integer" is

- A. always true
- B. never true
- C. true only when the integer is positive
- D. true for non-negative integers

#### **Answer:**



**Watch Video Solution** 

**17.** Which of the following shows the maximum rise in temperature?

A. 
$$0^{\circ}C$$
 to  $10^{\circ}C$ 

B. 
$$-4^{\circ}C$$
 to  $8^{\circ}C$ 

C. 
$$-15^{\circ} C$$
 to  $-8^{\circ} C$ 

D. 
$$-7^{\circ}C$$
 to  $0^{\circ}$ 

## **Answer:**



**Watch Video Solution** 

Exercise State Whether The Given Statements

Are True T Or False F

1. The smallest natural number is zero.



**2.** Zero is not an integer as it is neither positive nor negative.



**3.** The sum of all the integers between -5 and -1 is -6.



**4.** The successor of the integer 1 is 0.



**5.** Every positive integer is larger than every negative integer.



**6.** The sum of any two negative integers is always greater than both the integers.



**Watch Video Solution** 

**7.** The sum of any two negative integers is always smaller than both the integers.



**8.** The sum of any two positive integers is greater than both the integers.



**Watch Video Solution** 

**9.** All whole numbers are integers



**Watch Video Solution** 

**10.** All integers are whole numbers.



**11.** Since 5 > 3, therefore -5 > -3



**Watch Video Solution** 

**12.** Zero is less than every positive integer.



**Watch Video Solution** 

**13.** Zero is larger than every negative integer.



**14.** Zero is neither positive nor negative.



**Watch Video Solution** 

**15.** On the number line, an integer on the right of a given integer is always larger than the integer



**16.** -2 is to the left of -5 on the number line.



**Watch Video Solution** 

17. The smallest integer is 0.



**Watch Video Solution** 

**18.** 6 and -6 are at the same distance from 0 on the number line.



**19.** The difference between an integer and its additive inverse is always even.



**Watch Video Solution** 

**20.** The sum of an integer and its additive inverse is always zero.



**21.** The sum of two negative integers is a positive integer.



**22.** The sum of three different integers can never be zero.



Exercise Fill In The Blanks To Make The Statements True

<b>1.</b> On the number line, $-15$ is to the of
zero.
Watch Video Solution
2. On the number line, 10 is to the of zero.
Watch Video Solution
<b>3.</b> The additive inverse of 14 is



**4.** The additive inverse of -1 is .



5. The number of integers lying between -5 and 5 is \_\_\_\_\_.



**6.** (-11) + (-2) + (-1) =



Watch Video Solution

7. (-80) + 0 + (-90) =\_\_\_\_\_



Watch Video Solution

8. -3456 = -8910



#### **Exercise Fill In The Blanks**

$$1.(-11) + (-15)_{---}11 + 15$$



Watch Video Solution

**2.** 
$$(-71) + (-9)_{---}(-81) + (-9)$$



**3.** Fill in blanks using sign  $\langle \cdot, \cdot \rangle$  or = .  $0_{----1}$ 







**5.** -10 \_\_\_\_\_ -11



**6.** – 101 \_\_\_\_\_ – 102



Watch Video Solution

7. 
$$(-2) + (-5) + (-6)$$

$$(-3) + (-4) + (-6)$$



**8.** 0 -2



$$1 + 2 + 3$$

### Watch Video Solution

(-1) + (-2) - (-3)

# Exercise

1. Match the items of Column I with that of Column II:

	Column I	Column II
(i)	The additive inverse of +2	(A) O
(ii)	The greatest negative integer	(B)-2
(iii)	The greatest negative even integer	(C)2
(iv) (v)	The smallest integer greater than every negative integer Sum of predecessor and successor of –1	(D) 1 (E) -1



### **Watch Video Solution**

### 2. Compute each of the following:

$$30 + (-25) + (-10)$$



### 3. Compute each of the following:

$$(-20) + (-5)$$



## **Watch Video Solution**

### 4. Compute each of the following:

$$70 + (-20) + (-30)$$

A. 20

B. -20

C. 22

D. -22

**Answer: A** 



Watch Video Solution

**5.** Compute each of the following:

$$-50 + (-60) + 50$$



### 6. Compute each of the following:

$$1+(-2)+(-3)+(-4)$$



**Watch Video Solution** 

#### 7. Compute each of the following:

$$0+(-5)+(-2)$$



8. Compute each of the following:

$$0 - (-6) - (+6)$$



**Watch Video Solution** 

**9.** Compute each of the following:

$$0-2-(-2)$$



10. If we denote the height of a place above sea level by a positive integer and depth below the sea level by a negative integer, write the following using integers with the appropriate signs:

(a) 200 m above sea level (b) 100 m below sea level

(c ) 10 m above sea level (d) sea level



Decrease in size



**Watch Video Solution** 

12. Write the opposite of each of the following:

**Failure** 



Profit of Rs.10



**Watch Video Solution** 

**14.** Write the opposite of each of the following:

1000 A.D.



Rise in water level



**Watch Video Solution** 

**16.** Write the opposite of each of the following:

60 km south



10 m above the danger mark of river Ganga



**Watch Video Solution** 

**18.** Write the opposite of each of the following:

20 m below the danger mark of the river

Brahmaputra



Winning by a margin of 2000 votes



**Watch Video Solution** 

**20.** Write the opposite of each of the following:

Depositing Rs.100 in the Bank account



**21.** Write the opposite of each of the following:  $20^{\circ}\,C$  rise in temperature.



**Watch Video Solution** 

**22.** Temperature of a place at 12:00 noon was  $+5^{\circ}C$ . Temperature increased by  $3^{\circ}C$  in first hour and decreased by  $1^{\circ}C$  in the second hour. What was the temperature at 2:00 pm?



23. Write the digits 0, 1, 2, 3, ..., 9 in this order and insert '+' or '-' between them to get the result 3.



**Watch Video Solution** 

24. Write the integer which is its own additive inverse



25. Write six distinct integers whose sum is 7.



**26.** Write the integer which is 4 more than its additive inverse.



**27.** Write the integer which is 2 less than its additive inverse.

**28.** Write two integers whose sum is less than both the integers.



**29.** Write two distinct integers whose sum is equal to one of the integers.



- **30.** Using number line, how do you compare
- (a) two negative integers? (b) two positive integers?
- (c) one positive and one negative integer?



**Watch Video Solution** 

### **31.** Observe the following:

$$1+2-3+4+5-6-7+8-9 = -5$$

Change one - sign as + sign to get the sum 9.



**32.** Arrange the following integers in the ascending order:

$$-2, 1, 0, -3, +4, -5$$



**33.** Arrange the following integers in the descending order:

$$-3, 0, -1, -4, -3, -6$$



**34.** Write two integers whose sum is 6 and difference is also 6.



**Watch Video Solution** 

**35.** Write five integers which are less than -100 but greater than -150.



**36.** Write four pairs of integers which are at the same distance from 2 on the number line.



**Watch Video Solution** 

**37.** The sum of two integers is 30. If one of the integers is -42, then find the other.



**38.** Sum of two integers is -80. If one of the integers is -90, then find the other.



**Watch Video Solution** 

**39.** If we are at 8 on the number line, in which direction should we move to reach the integer (a) -5 (b) 11 (c) 0?



**40.** Using the number line, write the integer

which is

- (a) 4 more than -5
- (b) 3 less than 2
- (c) 2 less than -2



**Watch Video Solution** 

41. Find the value of

$$49 - (-40) - (-3) + 69$$



**42.** Subtract -5308 from the sum [(-2100) + (-2001)]

