OBJECTIVE TYPE QUESTIONS

PAGE: 5.18

Mark the correct alternative in each of the following:

1. Which of the following statement is true?
(a) − 7 > − 5 **(b) − 7 < − 5** **(c) (− 7) + (− 5) > 0** **(d) (− 7) − (− 5) > 0**
Solution:

The option (b) is correct answer.
In option (a)
We know that − 7 is to the left of – 5
Hence, − 7 < − 5.
In option (c)
We know that (− 7) + (− 5) = − (7 + 5) = − 12.
So − 12 is to the left of 0
Hence (− 7) + (− 5) < 0.
In option (d)
(− 7) − (− 5) = (− 7) + (additive inverse of − 5) = (− 7) + (5) = − (7 − 5) = − 2
We know that − 2 is to the left of 0, so (− 7) − (− 5) < 0.

2. 5 less than − 2 is
(a) 3 **(b) − 3** **(c) − 7** **(d) 7**
Solution:

The option (c) is correct answer.
We know that, 5 less than − 2 = (− 2) − (5) = − 2 − 5 = − 7

3. 6 more than − 7 is
(a) 1 **(b) − 1** **(c) 13** **(d) – 13**
Solution:

The option (b) is correct answer.
We know that, 6 more than − 7 = (− 7) + 6 = − (7 − 6) = − 1

4. If *x* is a positive integer, then
(a) x + |x| = 0 **(b) x − |x| = 0** **(c) x + |x| = −2x** **(d) x = − |x|**
Solution:

The option (b) is correct answer.
We know that if *x* is positive integer, then |x| = x
Hence, x + |x| = x + x = 2x and x − |x| = x − x = 0

5. If *x* is a negative integer, then
(a) x + |x| = 0 **(b) x − |x| = 0** **(c) x + |x| = 2x** **(d) x − |x| = − 2x**
Solution:

The option (a) is correct answer.
We know that x is negative integer, then |x| = −x
It can be written as
x + |x| = x − x = 0 and x − |x| = x − (− x) = x + x = 2x

6. If x is greater than 2, then |2 − x| =
(a) 2 − x (b) x − 2 (c) 2 + x (d) − x – 2
Solution:

The option (b) is correct answer.
We know that if a is negative integer, then |a| = − a
It is given that x is greater than 2 where 2 − x is negative
Hence, |2 − x| = − (2 − x) = − 2 + x = x − 2.

7. 9 + |− 4| is equal to
(a) 5 (b) − 5 (c) 13 (d) −13
Solution:

The option (c) is correct answer.
We know that, |− 4| = 4
Hence 9 + |− 4| = 9 + 4 = 13

8. (− 35) + (− 32) is equal to
(a) 67 (b) − 67 (c) − 3 (d) 3
Solution:

The option (b) is correct answer.
It can be written as (− 35) + (− 32) = − (35 + 32) = − 67

9. (− 29) + 5 is equal to
(a) 24 (b) 34 (c) − 34 (d) – 24
Solution:

The option (d) is correct answer.
It can be written as (− 29) + 5 = − (29 − 5) = − 24

10. |− |− 7| − 3| is equal to
(a) − 7 (b) 7 (c) 10 (d) – 10
Solution:

The option (c) is correct answer.
It can be written as |− |− 7| − 3| = |− 7 − 3| = |− 10| = 10

11. The successor of − 22 is
(a) − 23 (b) − 21 (c) 23 (d) 21
Solution:

The option (b) is correct answer.
We know that if ‘a’ is an integer a + 1 is its successor.
So the successor of − 22 = − 22 + 1 = − (22 − 1) = − 21

12. The predecessor of – 14 is
(a) – 15 (b) 15 (c) 13 (d) – 13
Solution:

The option (a) is correct answer.
The predecessor of – 14 is – 15.

13. If the sum of two integers is − 26 and one of them is 14, then the other integer is
(a) − 12 (b) 12 (c) − 40 (d) 40
Solution:

The option (c) is correct answer.
It is given that the sum of two integers = − 26
One of them = 14
So the other integer = − 26 − 14 = − (26 + 14) = − 40

14. Which of the following pairs of integers have 5 as a difference?
(a) 10, 5 (b) − 10, − 5 (c) 15, − 20 (d) both (a) and (b)
Solution:

The option (d) is correct answer.
Consider option (a) 10 − 5 = 5
Consider option (b) (− 5) − (− 10) = − 5 + 10 = 5
Consider option (c) 15 − (− 20) = 15 + 20 = 35

15. If the product of two integers is 72 and one of them is − 9, then the other integers is
(a) − 8 (b) 8 (c) 81 (d) 63
Solution:

The option (a) is correct answer.
It is given that the product of two integers = 72
One of them = − 9
Hence, the other integers = 72 ÷ (− 9) = − 8

16. On subtracting − 7 from − 14, we get
(a) − 12 (b) − 7 (c) −14 (d) 21
Solution:

The option (b) is correct answer.
It can be written as
Required number = − 14 − (− 7) = − 14 + 7 = − (14 − 7) = − 7

17. The largest number that divides 64 and 72 and leave the remainders 12 and 7 respectively, is
(a) 17 (b) 13 (c) 14 (d) 18
Solution:

The option (b) is correct answer.
By subtracting 12 and 7 from 64 and 72
We get
64 − 12 = 52 and 72 − 7 = 65
So the required number is the HCF of 52 and 65.
It can be written as
52 = 4 × 13 and 65 = 5 × 13
HCF of 52 and 65 = 13

Hence, the largest number that divides 64 and 72 and leave the remainders 12 and 7 respectively, is 13.

18. The sum of two integers is − 23. If one of them is 18, then the other is
(a) −14 (b) 14 (c) 41 (d) −41
Solution:

The option (d) is correct answer.
It is given that the sum of two integers = − 23
One of them = 18
So the other number = (− 23) − (18) = − 23 − 18 = − (23 + 18) = − 41
Hence, the other number is − 41.

19. The sum of two integers is − 35. If one of them is 40, then the other is
(a) 5 (b) − 75 (c) 75 (d) – 5
Solution:

The option (b) is correct answer.
It is given that the sum of two integers = − 35
One of them = 40
So the other number = (− 35) − (40) = − 35 − 40 = − (35 + 40) = − 75
Hence, the other number is − 75.

20. On subtracting − 5 from 0, we get
(a) − 5 (b) 5 (c) 50 (d) 0
Solution:

The option (b) is correct answer.
We know that, 0 − (− 5) = 0 + 5 = 5
Hence by subtracting − 5 from 0, we obtain 5.

21. (− 16) + 14 − (− 13) is equal to
(a) − 11 (b) 12 (c) 11 (d) – 15
Solution:

The option (c) is correct answer.
It can be written as (− 16) + 14 − (− 13) = (− 16) + 14 + 13 = (− 16) + 27 = 27 − 16 = 11

22. (− 2) × (− 3) × 6 × (− 1) is equal to
(a) 36 (b) − 36 (c) 6 (d) – 6
Solution:

The option (b) is correct answer.
It can be written as (− 2) × (− 3) × 6 × (− 1) = (2 × 3) × 6 × (− 1) = 6 × 6 × (− 1) = 36 × (− 1)
So we get (− 2) × (− 3) × 6 × (− 1) = − (36 × 1) = − 36

23. 86 + (- 28) + 12 + (- 34) is equal to
(a) 36 (b) − 36 (c) 6 (d) – 6
Solution:

The option (a) is correct answer.

It can be written as 86 + (−28) + 12 + (−34) = 86 + (−28) − (34 − 12) = 86 + (−28) − 22
On further calculation
86 + (−28) + 12 + (−34) = (86 − 28) − (34 − 12) = (86 − 28) − 22 = 58 − 22 = 36

24. (−12) × (−9) − 6 × (−8) is equal to
(a) 156 (b) 60 (c) −156 (d) – 60
Solution:

The option (a) is correct answer.
It can be written as (−12) × (−9) − 6 × (−8) = (12 × 9) − 6 × (−8) = 108 − 6 × (−8)
On further calculation
(−12) × (−9) − 6 × (−8) = 108 + 6 × 8 = 108 + 48 = 156