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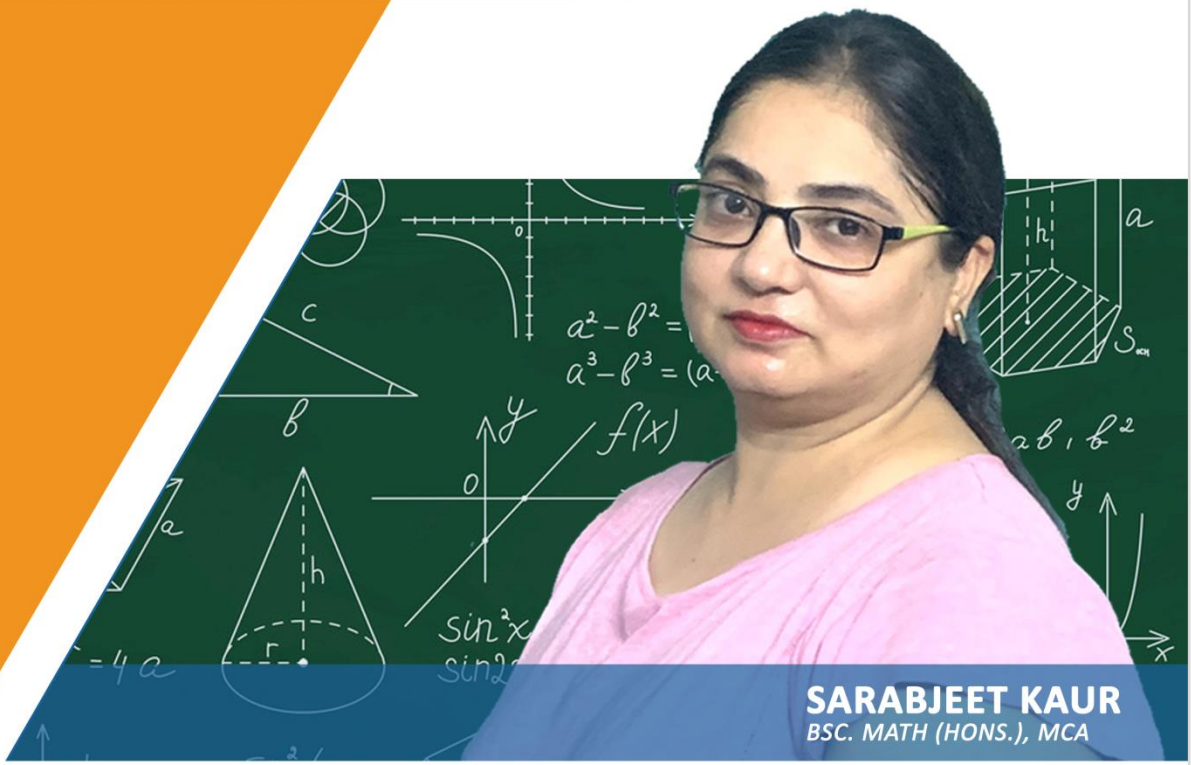


SARABJEET KAUR
BSC. MATH (HONS.), MCA

GRADE 11TH MATHS

CHAPTER 5

Linear Inequalities

www.careerplusacademy.com careerplusacademy@gmail.com

/careerplusacademy /in/sarabkaur /careerplusacademy +91-987-111-5373

In this set of Mathematics Questions for Exams focuses on "Algebraic Solutions of Linear Inequalities in One Variable and their Graphical Representation".

1. If x>7 then x+2>9 is true?

a) True

b) False

2. If x>7 then which is impossible?

a) x>4

b) x<6

c) x>9

d) x<14

3. If x>5 then 2x>10 is true or not?

a) True

b) False

4. If x>7 then -x>-7 is _____

a) possible

b) certainly false

c) certainly true

d) depend on x

5. If x is a positive integer and 20x<100 then find solution set of x.

a) {0,1,2,3,4,5}

b) {1,2,3,4,5}

c) {1,2,3,4}

d) {0,1,2,3,4}

6. If x is a natural number and $20x \leq 100$ then find solution set of x.

a) {0,1,2,3,4,5}

b) {1,2,3,4,5}

c) {1,2,3,4}

d) {0,1,2,3,4}

7. If x is a whole number and $10x \leq 50$ then find solution set of x.

a) {0,1,2,3,4,5}

b) {1,2,3,4,5}

c) {1,2,3,4}

d) {0,1,2,3,4}

8. If $2x+1 > 5$ then which is true?

a) $x>4$

b) $x<4$

c) $x>2$

d) $x<2$

9. If $x-1>-x+7$ then which is true?

a) $x>4$

b) $x<4$

c) $x>2$

d) $x<2$

10. Rahul obtained 20 and 25 marks in first two tests. Find the minimum marks he should get in the third test to have an average of at least 30 marks.

a) 60

b) 35

c) 180

d) 45

11. Find all pairs of consecutive odd positive integers both of which are smaller than 8 such that their sum is more than 10.

a) (5,7)

b) (3,5), (5,7)

c) (3,5), (5,7), (7,9)

d) (5,7), (7,9)

12. The longest side of a triangle is 2 times the shortest side and the third side is 4 cm shorter than the longest side. If the perimeter of the triangle is at least 61 cm, find the minimum length of the shortest side.

a) 7

b) 9

c) 11

d) 13

13. The region containing all the solutions of an inequality is called solution region.

a) True

b) False

14. 2x+y>5. Which of the following will satisfy the given equation?

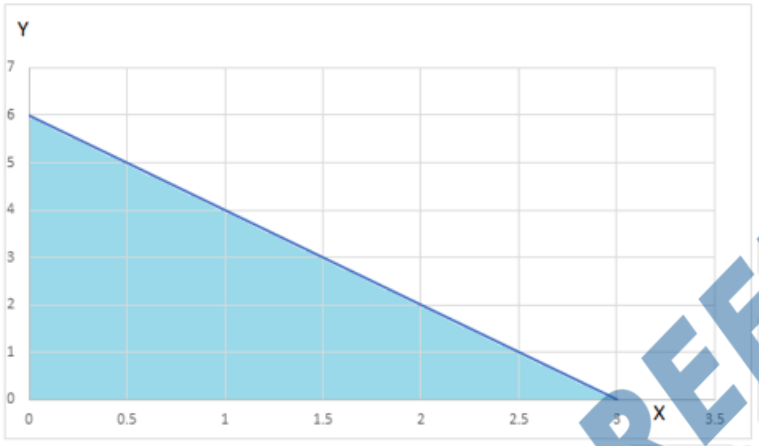
a) (1,1)

b) (1,2)

c) (2,1)

d) (2,2)

15. Inequations involved in the given region are_____



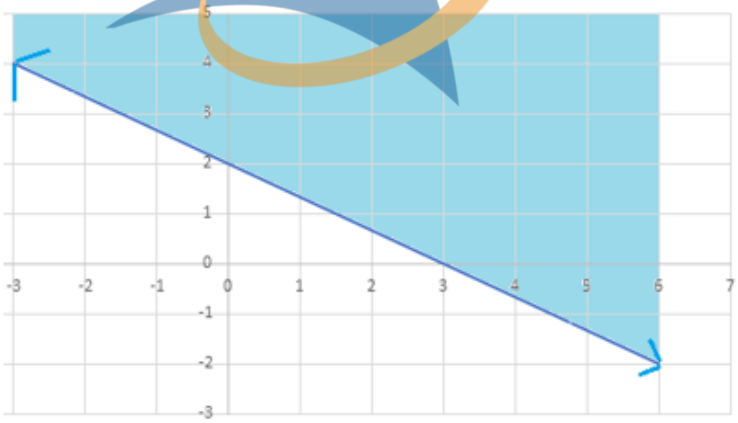
a) 2x+y≥6, x≥0, y≥0

b) 2x+y>6, x≥0, y≥0

c) 2x+y<6, x≥0, y≥0

d) 2x+y≤6, x≥0, y≥0

16. Inequations involved in the given region are_____



a) 2x+3y>6

b) 2x+3y<6

c) 2x+3y≥6

d) 2x+3y≤6

17. y<-2 involves region are_____

a) above dotted line y=-2

b) below dotted line y=-2

c) above complete line y=-2

d) below complete line y=-2

18. 3x-6 ≥0 are_____

a) right side with dotted x=2

b) left side with dotted x=2

c) right side with complete line x=2

d) left side with complete line x=2

19. IQ of a person is given by the formula

IQ =(MA/CA) × 100, where MA is mental age and CA is chronological age. If 40 ≤ IQ ≤ 120 for a group of 10 years old children, find the range of their mental age.

a) (9,16)

b) [9,16]

c) (4,12)

d) [4,12]

20. A solution is to be kept between 77° F and 86° F. What is the range in temperature in degree Celsius (C) if the Celsius / Fahrenheit (F) conversion formula is given by F = 9/5 C + 32°?

a) [15°, 20°]

b) [20°, 25°]

c) [25°, 30°]

d) [30°, 35°]