

ECAT (Pre-Eng) Mathematics Chapter 21 Linear Inequalities & Linear Programming

Sr	Questions	Answers Choice
1	For which of the following ordered pairs (s, t) is $s + t > 2$ and $s - t < -3$?	A. (3, 2) B. (2, 3) C. (1, 8) D. (0, 3)
2	Multiplying each side of an inequality by (-1) will:	A. Not effect B. Change the sign C. Become zero D. Not defined
3	A _____ divides the plane into left and right half planes.	A. Vertical line B. Horizontal line C. Non vertical line D. Inequality
4	If $ab > 0$ and $a < 0$, which of the following is negative?	A. b B. -b C. -a D. $(a - b)^2$
5	Order (or sense) of an inequality is changed by multiplying or dividing its each side by a:	A. Zero B. one C. negative constant D. Non negative constant
6	A point where two of its boundary lines intersect is called	A. Corner point B. Feasible point C. Vertex D. Feasible solution
7	A point of a solution region where two of its boundary lines intersect, is called	A. Boundary B. Inequality C. Half plane D. Vertex
8	The solution set of $x < 4$ is	A. $-\infty < x < 4$ B. $x > 4$ C. $x < 2$ D. $x > 2$
9	Question Image	A. $p > r$ B. $p > rr$ C. $p + r > 0$ D. $p - r > 0$
10	The graph of $y > 0$ is the upper - half of:	A. y-axis B. x-axis C. 1st and 4th quadrant D. 2nd and 3rd quadrant
11	$s > t$ then	A. $(s - t)^2 > (t - s)^2$ B. $(s - t)^2 < (t - s)^2$ C. $(s - t)^2 = (t - s)^2$

		z D. None
12	(0,0) is in the solution of the inequality	A. $x + y > 3$ B. $x - y > 2$ C. $3x + 2y > 5$ D. $3x - 2y < 2$
13	x is a member of the set [-1, 0, 3, 5] y is a member of the set {-2, 1, 2, 4} which is possible?	A. $x - y = -6$ B. $x - y < -6$ C. $x - y > -6$ D. None
14	The graph of the linear equation of the form $ax + by = c$ is a line which divided the plane into:	A. Two similar regions B. Two disjoint regions C. Four equal parts D. One region
15	The points (x, y) which satisfy a linear inequality in two variables x and y form its	A. domain B. range C. solution D. none of these
16	The corner point of the boundary lines, $x - 2x + 2y = 10$ is:	A. (8,1) B. (1,8) C. (6,10) D. (3,5)
17	(1, 2) is in the solution of the inequality	A. $2x + y > 8$ B. $2x + y < 6$ C. $2x - y > 1$ D. $2x + 3y < 2$
18	The corner point of the boundary lines, $x - 2y + 2x + y = 2$ is:	A. (2,6) B. (6,2) C. (-2,2) D. (2,-2)
19	$x = \underline{\hspace{2cm}}$ is in the solution of $2x + 3 < 0$	A. 0 B. 2 C. -1 D. -2
20	Maximum value of $z = 15x + 20y$ subject to $3x + 4y \leq 12, x, y \geq 0$ is given by	A. 46 B. 60 C. 50 D. 70