

ECAT Pre General Science Mathematics Chapter 20 Analytic Geometry Online Test

Sr	Questions	Answers Choice
1	The distance between the parallel lines $3x - 4y + 3 = 0$ and $3x - 4y + 7 = 0$ is:	A. $\frac{2}{3}$ B. $\frac{9}{13}$ C. $\frac{4}{5}$ D. $\frac{7}{12}$
2	The distance between lines $3x + 4y = 9$ and $6x + 8y = 15$ is:	A. $\frac{2}{3}$ B. $\frac{3}{10}$ C. 8 D. $\frac{6}{5}$
3	The distance between two parallel lines $2x - 5y + 13 = 0$ and $-2x + 5y - 6 = 0$ is:	A. $\sqrt{29}$ B. $\frac{8}{\sqrt{29}}$ C. $\frac{7}{\sqrt{29}}$ D. $29\sqrt{7}$
4	The distance from the point $P(3,4)$ to the line $y = 2x - 3$ is:	A. $\sqrt{5}$ B. $\sqrt{3}$ C. $2\sqrt{3}$ D. $\frac{1}{\sqrt{5}}$
5	The length of perpendicular from $(3,1)$ to the line $4x + 3y + 20 = 0$ is:	A. 7 B. 5 C. 11 D. 12
6	The length of perpendicular from $(-2,3)$ to the line $y = 2x - 3$ is:	A. $5\sqrt{2}$ B. 6 C. $2\sqrt{5}$ D. 7.5
7	The distance from the point $P(6,-1)$ to the line $6x - 4x + 9 = 0$ is:	A. $\frac{5}{7}$ B. $\frac{\sqrt{52}}{7}$ C. $\frac{2}{48}$ D. $\frac{49}{\sqrt{52}}$
8	The two lines $5x + 7y = 35$ and $3x - 7y = 21$, intersect at the point:	A. (7,5) B. (1,2) C. (2,7) D. (7,0)
9	The two lines $x + y = 0$ and $2x - y + 3 = 0$ intersect at the point:	A. (-1,1) B. (2,3) C. (1,3) D. (-1,2)
10	The equation of the line through $(-8, 5)$ having slope undefined is:	A. $y + 8 = 0$ B. $y = 8$ C. $y = x + 8$ D. $x + 8 = 0$
11	If the line is parallel to the y-axis, then m is said to be:	A. zero B. undefined C. $\frac{1}{2}$ D. -1
12	The slope of the line from $B(2,-3)$ through $A(0,3)$ is:	A. -3 B. $\frac{1}{3}$ C. 0 D. undefined
13	The points A, B and C are said to be collinear if they:	A. be on same line B. have same slope C. Lie on a same plane D. options a & b
14	Axes remain parallel to the old axes, in:	A. Translating of axes B. rotation of axes C. Translation and rotation of axes D. None of these
15	In translation of axes, _____ is shifted to another point in the plane.	A. a-axis B. y-axis C. origin D. Point

16	Shifting origin to $(-4,-6)$, the new coordinates of $(-6,-8)$ are:	A. $(-1,2)$ B. $(-2,-2)$ C. $(1,-2)$ D. $(3,-2)$
17	Shifting origin to $(1,-2)$, the new coordinates of $(4,5)$ are:	A. $(3,7)$ B. $(5,3)$ C. $(-3,7)$ D. $(3,-7)$
18	Shifting origin to $(-3,2)$, the new coordinate of $(-2,6)$ are:	A. $(1,4)$ B. $(2,4)$ C. $(-1,3)$ D. $(-1,4)$
19	Shifting origin to $(-3,2)$, the new coordinates of $(-6,9)$ are:	A. $(-9,7)$ B. $(3,7)$ C. $(-3,7)$ D. $(3,-7)$
20	If points $(5, 5)$, $(10, x)$ and $(-5, 1)$ are collinear, $x =$	A. 5 B. 3 C. 9 D. 7
21	The coordinates of a point which trisects segment joining $(0,0)$ and $(9,12)$ are:	A. $(4,3)(8,6)$ B. $(4,3)(6,8)$ C. $(3,4)(6,8)$ D. $(3,4)(8,6)$
22	The two vertices of a triangle are $(-2,4)$ and $(5,4)$. If its centroid is $(5,6)$, then third vertex is:	A. $(-10,12)$ B. $(12,-10)$ C. $(12,10)$ D. $(10,12)$
23	The in-centre of triangle whose vertices are $(0,0)$, $(5,12)$ and $(16,12)$ is:	A. $(9,7)$ B. $(2,7)$ C. $(9,2)$ D. $(7,9)$
24	The distance of a point $(x \cos \theta, x \sin \theta)$ from origin is:	A. x B. $x \tan \theta$ C. $-\tan \theta$ D. $-\cot \theta$
25	If (x,y) are the coordinates of a point P, then the first number of the ordered pair is called:	A. Ordinate B. Abscissa C. quadrant D. Cartesian
26	Bisectors of angles of a triangle are:	A. Collinear B. Concurrent C. Perpendicular D. zero
27	The medians of a triangle are:	A. Collinear B. Concurrent C. Perpendicular D. zero
28	If the points (a,b) , (x,y) and $(a-x, b-y)$ are collinear, then $ay =$	A. bx B. $b-y$ C. $a-x$ D. x
29	The points $(a,0)$, $(0,b)$ and $(3a, -2b)$ are:	A. Collinear B. Vertices of isosceles triangle C. corner of a right-angled triangle D. None of these
30	If a point (p,q) is equidistant from the points $(5,3)$ and $(-2,-4)$, then $p+q =$	A. -1 B. 1 C. 3 D. -3