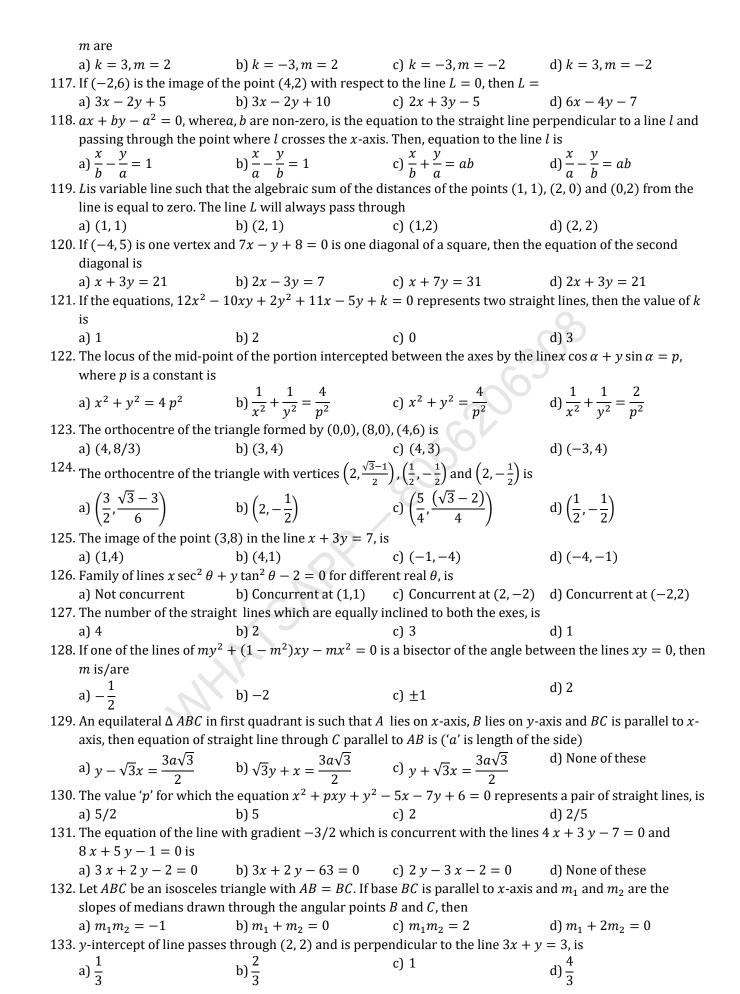
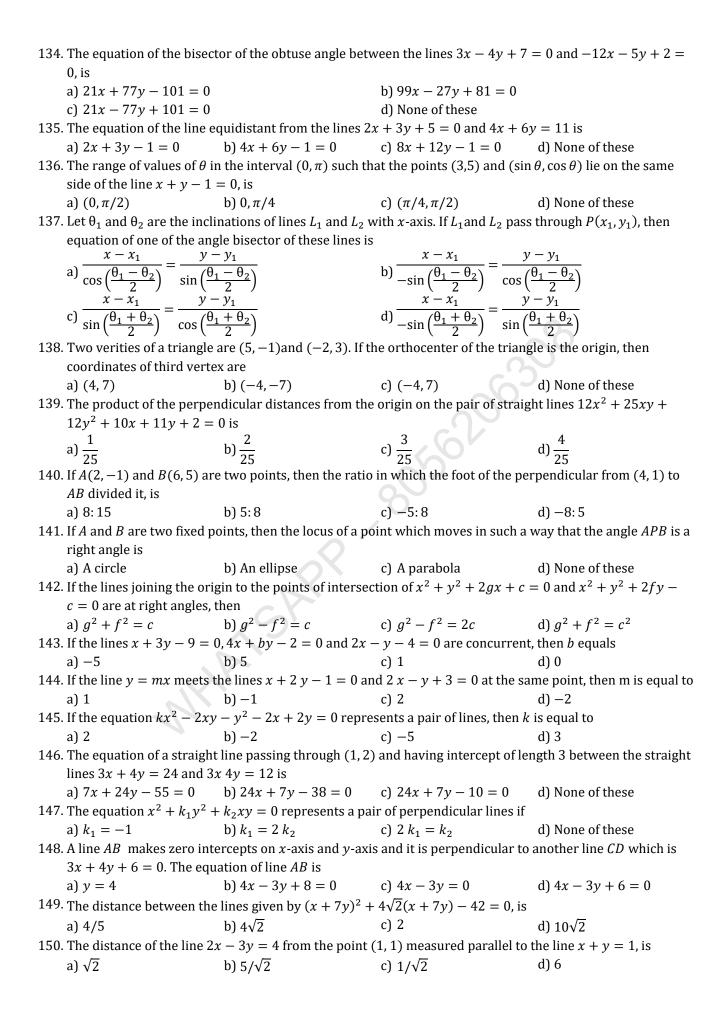
STRAIGHT LINES

101. The equation of the base of an equilateral triangle is x + y = 2 and the vertex is (2, -1), then the length of

the side of the triangle is			
a) $\sqrt{3/2} / \sqrt{2/3}$	b) $\sqrt{2}$	c) $\sqrt{2/3}$	d) $\sqrt{3/2}$
102. The line $\frac{x}{a} - \frac{y}{b} = 1$ cuts the <i>x</i> -axis at <i>P</i> . The equation of the line through <i>P</i> perpendicular to the given line is			
a) $x + y = ab$	b) $x + y = a + b$	c) $ax + by = a^2$	$d) bx + ay = b^2$
103. In the above question the coordinates of the other two vertices are			
a) (2,0), (4,4)	b) (2,4), (4,0)	c) $(-2,0), (4,-4)$	
104. The line $x + 2y = 4$ is translated parallel to itself by 3 units in the sense of increasing x and then rotated			
by 30° in the clockwise direction about the point where the shifted line cuts the x -axis. The equation of the			
line in the new position is			
a) $y = \tan(\theta - 30^\circ)(x - 4 - 3\sqrt{5})$			
b) $y = \tan(30^\circ - \theta)(x - 4 - 3\sqrt{5})$			
c) $y = \tan(\theta + 30^\circ)(x + 4 + 3\sqrt{5})$			
d) $y = \tan(\theta - 30^{\circ})(x + 4 + 3\sqrt{5})$			
105. If $\lambda x^2 - 10 xy + 12 y^2 + 5 x - 16 y - 3 = 0$, represents a pair of straight lines, then the value of λ is			
a) 4	b) 3	c) 2	d) 1
106. The number of integral values of m , for which the x -coordinate of the point of intersection of the lines			
3x + 4y = 9 and y = mx	z + 1 is also an integer, is		
a) 2	b) 0	c) 4	d) 1
107. The distance of the point (3, 5) from the line $2x + 3y - 14 = 0$ measured parallel to line $x - 2y = 1$, is			
a) $\frac{7}{\sqrt{5}}$	b) $\frac{7}{\sqrt{13}}$	c) √5	d) $\sqrt{13}$
V 5			
108. The equation $8x^2 + 8xy + 2y^2 + 26x + 13y + 15 = 0$ represents a pair of straight lines. The distance			
between then is	7	./7	d) None of these
a) $\frac{7}{\sqrt{5}}$	b) $\frac{7}{2\sqrt{5}}$	c) $\frac{\sqrt{7}}{5}$	a) None of these
109. A system of lines is given as $y = m_i x + c_i$ where m_i can take any value out of 0, 1, -1 and when m_i is			
positive, then c_i can be 1 or -1 , when m_i equal 0, c_i can be 0 or 1 and when m_i equals to -1 , c_i can take 0			
or 2. Then, the area enclosed by all these straight line is			
a) $\frac{3}{\sqrt{2}}(\sqrt{2}-1)$ sq unit	b) ca unit	c) $\frac{3}{2}$ sq unit	d) None of these
V =	V -	L	
110. The angle between the lines represented by $x^2 - y^2 = 0$ is			
a) 0°	b) 45°	c) 90°	d) 180°
111. If the slope of one of the lines given by $36x^2 + 2hxy + 72y^2 = 0$ is four times the other, then $h^2 =$			
a) 5040	b) 4050	c) 8100	d) None of these
112. If non-zero numbers a, b, c are in HP, then the straight line			
$\frac{x}{a} + \frac{y}{b} + \frac{1}{c} = 0$ always passes through a fixed point. That point is			
a) $(1, -\frac{1}{2})$	b) (1, -2)	c) (-1,-2)	d) (-1, 2)
113. The distance between the pair of lines given by $x^2 + y^2 + 2xy - 8ax - 8ay - 9a^2 = 0$ is			
a) $2\sqrt{5}a$	b) $10\sqrt{a}$	c) 10a	d) $5\sqrt{2}a$
114. The image of the origin v			a) 5 v 2 u
a) (-8,6)	b) (8, 6)		d) (8, -6)
115. The equation of a straigh			
0 and perpendicular to one of them, is			
	b) $x - y - 3 = 0$	c) $x - 3y - 5 = 0$	d) $x - 3y + 5 = 0$
			nes, then the values of k and





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