11th chapter 6 - 1 mark

11th Standard

Date : 14-Sep-19

Maths

Reg.No. :

Exam Time : 01:35:00 Hrs

Total Marks : 95

95 x 1 = 95

1) The equation of the locus of the point whose distance from y-axis is half the distance from origin is
(a) $x^2+3y=0$ (b) $x^2-3y^2=0$ (c) $3x^2+y^2=0$ (d) $3x^2-y^2=0$

2) Which of the following equation is the locus of $(at^2; 2at)$
(a) (b) $\frac{x^2}{a^2}+\frac{y^2}{b^2}=1$ (c) $x^2+y^2=a^2$ (d) $y^2=4ax$

3) Which of the following point lie on the locus of $3x^2+3y^2-8x-12y+17 = 0$
(a) (0,0) (b) (-2,3) (c) (1,2) (d) (0,-1)

4) If the point (8,-5) lies on the locus $\frac{x^2}{16}-\frac{y^2}{25}=k$, then the value of k is
(a) 0 (b) 1 (c) 2 (d) 3

5) Straight line joining the points (2, 3) and (-1, 4) passes through the point (α,β) if
(a) $\alpha+2=7$ (b) $3\alpha+\beta=9$ (c) $\alpha+3\beta=11$ (d) $3\alpha+\beta=11$

6) The slope of the line which makes an angle 45 with the line 3x- y = -5 are
(a) 1,-1 (b) $\frac{1}{2},-2$ (c) $1,\frac{1}{2}$ (d) $2,-\frac{1}{2}$

7) Equation of the straight line that forms an isosceles triangle with coordinate axes in the I-quadrant with perimeter $4 + 2\sqrt{2}$ is
(a) x+y+2=0 (b) x+y-2=0 (c) $x+y-\sqrt{2}=0$ (d) $x+y+\sqrt{2}=0$

8) The coordinates of the four vertices of a quadrilateral are (-2,4), (-1,2), (1,2) and (2,4) taken in order. The equation of the line passing through the vertex (-1,2) and dividing the quadrilateral in the equal areas is
(a) x+1=0 (b) x+y=1 (c) x+y+3=0 (d) x-y+3=0

9) The intercepts of the perpendicular bisector of the line segment joining (1, 2) and (3,4) with coordinate axes are
(a) 5,-5 (b) 5,5 (c) 5,3 (d) 5,-4

10) The equation of the line with slope 2 and the length of the perpendicular from the origin equal to $\sqrt5$ is
(a) $x+2y=\sqrt5$ (b) $2x+y=\sqrt5$ (c) 2x+y=5 (d) x+2y-5=0

11) A line perpendicular to the line 5x - y = 0 forms a triangle with the coordinate axes. If the area of the triangle is 5 sq. units, then its equation is
(a) $x+5y\pm5\sqrt2=0$ (b) $x-5y\pm5\sqrt2=0$ (c) $5x+y\pm5\sqrt2=0$ (d) $5x-y\pm5\sqrt2=0$

12) Equation of the straight line perpendicular to the line x - y + 5 = 0, through the point of intersection the y-axis and the given line
(a) x-y-5=0 (b) x+y-5=0 (c) x+y+5=0 (d) x+y+10=0

13) If the equation of the base opposite to the vertex (2,3) of an equilateral triangle is x +y = 2, then the length of a side is
(a) $\sqrt{\frac{3}{2}}$ (b) 6 (c) $\sqrt{6}$ (d) $3\sqrt{2}$

14) The line (p + 2q)x + (p - 3q)y = p - q for different values of p and q passes through the point
(a) $\left(\frac{3}{5},\frac{5}{2}\right)$ (b) $\left(\frac{2}{5},\frac{2}{5}\right)$ (c) $\left(\frac{3}{5},\frac{3}{5}\right)$ (d) $\left(\frac{2}{5},\frac{3}{5}\right)$

15) The point on the line 2x- 3y = 5 is equidistance from (1,2) and (3,4) is
(a) (7,3) (b) (4,1) (c) (1,-1) (d) (-2,3)

16) The image of the point (2, 3) in the line y = -x is
(a) (-3, -2) (b) (-3,2) (c) (-2, -3) (d) (3,2)

17) The length of $\bot$ from the origin to the line $\frac{x}{3}-\frac{y}{4}=1$ is
(a) $\frac{11}{5}$ (b) $\frac{5}{12}$ (c) $\frac{12}{5}$ (d) $\frac{-5}{12}$

18) The y-intercept of the straight line passing through (1,3) and perpendicular to 2xr- 3y + 1 = 0 is
(a) $\frac{3}{2}$ (b) $\frac{9}{2}$ (c) $\frac{2}{3}$ (d) $\frac{2}{9}$

19) If the two straight lines x + (2k -7)y + 3 = 0 and 3kx + 9y - 5 = 0 are perpendicular then the value of k is
(a) k=3 (b) $k=\frac13$ (c) $k=\frac23$ (d) $k=\frac32$

20) If a vertex of a square is at the origin and its one side lies along the line 4x + 3y - 20 = 0, then the area of the square is
(a) 20 sq. units (b) 16 sq. units (c) 25 sq. units (d) 4 sq.units

21) If the lines represented by the equations $6x^2+41xy-7y^2=0$ make angles and with x-axis then $\alpha\tan\beta=$
(a) $-\frac{6}{7}$ (b) $+\frac{6}{7}$ (c) $-\frac{7}{6}$ (d) $+\frac{7}{6}$

22) The area of the triangle formed by the lines $x^2 - 4y^2 = 0$ and x = a is
(a) $2a^2$ (b) $\frac{\sqrt3}{2}a^2$ (c) $\frac12a^2$ (d) $\frac{2}{\sqrt3}a^2$

23) If one of the lines given by $6x^2 - xy + 4cy^2 = 0$ is 3x + 4y = 0, then c equals to
(a) -3 (b) -1 (c) 3 (d) 1

24) θ is acute angle between the lines $x^2-xy- 6y^2 = 0$, then $\frac{2\cos\theta+3\sin\theta}{4\sin\theta+5\cos\theta}$ is
(a) 1 (b) $-\frac{1}{9}$ (c) $\frac{5}{9}$ (d) $\frac{1}{9}$

25) The equation of one the line represented by the equation $x^2+2xy \cot \theta- y^2 = 0$ is
(a) $x-y\cot\theta =0$ (b) $x+y\tan\theta =0$ (c) $x\cos\theta+y(\sin\theta+1)=0$ (d) $x\sin\theta+y(\cos\theta+1)=0$

26) The locus of a point which moves such that it maintains equal distance from the fixed point is a
(a) straight line (b) line bisector (c) circle (d) angle bisector

27) The locus of a point which moves such that it maintains equal distances from two fixed points is a
(a) straight line (b) line bisector (c) pair of straight lines (d) angle bisector

28) The value of x so that 2 is the slope of the line through (2, 5) and (x, 3) is
(a) -1 (b) 1 (c) 0 (d) 2

29) If the points (a, 0) (0, b) and (x,y) are collinear, then
(a) $\frac{x}{a}-\frac{y}{b}=1$ (b) $\frac{x}{a}+\frac{y}{b}=1$ (c) $\frac{x}{a}+\frac{y}{b}=-1$ (d) $\frac{x}{a}+\frac{y}{b}=0$

30) Slope of X-axis or a line parallel to X-axis is
(a) 0 (b) positive (c) negative (d) infinity

31) The equation of the line passing through (1, 5) and perpendicular to the line 3x -5y + 7 = 0 is
(a) 5x+3y-20=0 (b) 3x-5y+7=0 (c) 3x-5y+6=0 (d) 5x+3y+7=0

32) The figure formed by the lines ax ± by ± c = 0 is a
(a) rectangle (b) square (c) rhombus (d) none of these

33) Distance between the lines 5x + 3y - 7 = 0 and 15x + 9y + 14 = 0 is
(a) $\frac{35}{\sqrt{34}}$ (b) $\frac{1}{3\sqrt{34}}$ (c) $\frac{35}{2\sqrt{34}}$ (d) $\frac{35}{3\sqrt{34}}$

34) The angle between the lines 2x - y + 3 = 0 and x + 2y + 3 = 0 is
(a) 90° (b) 60° (c) 45° (d) 30°

35) The value of $\lambda$for which the lines 3x + 4y = 5, 5x + 4y = 4 and λx + 4y = 6 meet at a point is
(a) 2 (b) 1 (c) 4 (d) 3

36) If the lines x + q = 0, y - 2 = 0 and 3x + 2y + 5 = 0 are concurrent, then the value of q will be
(a) 2 (b) 2 (c) 3 (d) 5

37) A point equi-distant from the line 4x + 3y + 10 = 0, 5x -12y + 26 = 0 and 7x + 24y - 50 =0 is
(a) (1, -1) (b) (1, 1) (c) (0,0) (d) (0, 1)

38) The distance between the line 12x - 5y + 9 = 0 and the point (2, 1) is
(a) $\pm\frac{28}{13}$ (b) $\frac{28}{13}$ (c) $-\frac{28}{13}$ (d) none of these

39) If $7x^2 - 8xy +A = 0$ represents a pair of perpendicular lines, the A is
(a) 7 (b) -7 (c) -8 (d) 8

40) When $h^2 = ab$, the angle between the pair of straight lines $ax^2 + 2hxy + by^2 = 0$ is
(a) $\frac\pi4$ (b) $\frac\pi3$ (c) $\frac\pi6$ (d) 0°

41) The locus of a moving point P(a $\cos^3\theta$, a $\sin^3\theta$) is
(a) ${ x }^{ \frac { 2 }{ 3 } }+{ y }^{ \frac { 2 }{ 3 } }={ a }^{ \frac { 2 }{ 3 } }$ (b) $x^2+y^2=a^2$ (c) x + y = a (d) ${ x }^{ \frac { 3 }{ 2 } }+{ y }^{ \frac { 3 }{ 2 } }={ a }^{ \frac { 3 }{ 2 } }$

42) AB = 12 cm. AB slides with A on x-axis, B on y-axis respectively. Then the radius of the circle which is the locus of ΔAOB, where O is origin is:
(a) 36 (b) 4 (c) 16 (d) 9

43) The equating straight line with y-intercept -2 and inclination with x-axis is 135° is:
(a) x+y-2=0 (b) y-x+2=0 (c) y+x+2=0 (d) none

44) The length of the perpendicular from origin to line is \sqrt{3}x-y+24=0 is:
(a) 2\sqrt{3} (b) 8 (c) 24 (d) 12

45) If(1, 3) (2,1) (9, 4) are collinear then a is:
(a) \frac{1}{2} (b) 2 (c) 0 (d) -\frac{1}{2}

46) The lines x + 2y - 3 = 0 and 3x - y + 7 = 0 are:
(a) parallel (b) neither parallel nor perpendicular (c) perpendicular (d) parallel as wellas perpendicular

47) Find the nearest point on the line 3x + y = 10 from the origin is:
(a) (2, 1) (b) (1, 2) (c) (3, 1) (d) (1,3)

48) The slope of the line joining A and B where A is (-1, 2) and B is the point of intersection of the lines 2x + 3y = 5 and 3x + 4y = 7 is:
(a) -2 (b) 2 (c) \frac{1}{2} (d) -\frac{1}{2}

49) Find the angle between the lines $3x^2$,- 10xy - $3y^2$ = 0
(a) 90° (b) 45° (c) 60° (d) 30°

50) Find the point of intersection of the lines $2x^2$+ xy -y^2- 5x + 3y + 2 = 0:
(a) (-1, -1) (b) (1, 1) (c) (1, 0) (d) (0, 1)

51) If the straight line y=mx+c passes through the point (1,2) and (-2,4) then the value of m and c are
(a) \frac{8}{3},\frac{-2}{3} (b) \frac{-2}{3},\frac{8}{3} (c) \frac{2}{3},\frac{-8}{3} (d) \frac{-2}{3},\frac{-8}{3}

52) The inclination to the x-axis and intercept on y-axis of the line \sqrt {2y}=x+2\sqrt 2
(a) 30^0,\sqrt 2 (b) 30^0,2 (c) 45^0,2\sqrt 2 (d) 45^0,2

53) The equation of the bisectors of the angle between the co-ordinate axes are
(a) x+y=0 (b) x-y=0 (c) x\pmy=0 (d) x=0

54) The equation of a line which makes an angle of 135° with positive direction of x-axis and passes through the point (1,1) is
(a) x+y=2 (b) x-y=0 (c) 2\sqrt {2x}-\sqrt {2y}=0 (d) x-3y=0

55) The equation of the straight line bisecting the line segment joining the points (2,4) and (4,2) and making an angle of 45^0 with positive direction of x-axis is
(a) x+y=6 (b) x-y=0 (c) x-y=6 (d) x+y=0

56) The equation of median from verten B of the triangle \triangle ABC the co-ordinates of whose vertices are A(-1,6)B(-3,-9)C(5,-8)
(a) 29x+4y+5=0 (b) 8x-5y-21=0 (c) 13x+14y+47=0 (d) x+y-7=0

57) The equation of the straight line which passes through the point (2,4) and have intercept on the axes equal in magnitude but opposite in sign is
(a) x-y=2 (b) x-y+2=0 (c) x-y+1=0 (d) x-y-1=0

58) The equation of the straight line upon which the length of perpendicular from the origin is p and this normal makes an angle \theta with the positive direction of x-axis is
(a) x sin\theta+ycot\theta=p (b) xsin\theta+ycos\theta=p (c) xsin\theta+ytan\thetacos\theta=p (d) xcos\theta+ysin\theta=p

59) The length of perpendicular from the origin to a line is 12 and the line makes an angle of 120° with the positive direction of y-axis. then the equation of line is
(a) x+y\sqrt 3=24 (b) x+y=12\sqrt 2 (c) x+y=24 (d) x+y=12\sqrt 3

60) The lines x cos \alpha+ysin\alpha=p and xcos\beta+ysin\beta=q will be perpendicular if
(a) \alpha =\beta (b) \alpha-\beta=\frac{\pi}{2} (c) |\alpha-\beta|=\frac{\pi}{2} (d) \alpha-\beta=0

61) The distance of the point (2,3) from the line 2x-3y+9=0 measured along the line 2x-2y+5=0 is
(a) \sqrt 2 (b) 2\sqrt 2 (c) 4\sqrt 2 (d) 4

62) Which one of the following statements in false?

(a) A point (α,β) will lie on origin side of the line $ax+by+c=0$ if $a\alpha+b\beta+c$ and c have the same sign
(b) A point (α,β) will lie on non-origin side of the line $ax+by+c=0$ if $a\alpha+b\beta+c$ and c have opposite sign
(c) If $\alpha=\frac{\pi}{2},p=0$, then the equation $x\cos\alpha+y\sin\alpha=p$ represents x-axis
(d) If $\alpha=0,p=0$, then the equation $x\cos\alpha+y\sin\alpha=$presents x-axis

63) The lines $ax+y+1=0,x+by+1=0$ and $x+y+c=0(a\neq b\neq c\neq 1)$ are concurrent, then the value of $\frac{1}{1-a}+\frac{1}{1-b}+\frac{1}{1-c}=$

(a) -1 (b) 1 (c) 0 (d) abc

64) The co-ordinates of the foot of the perpendicular drawn from the point (2,3) to the line $3x-y+4=0$ is

(a) $(\frac{1}{10},\frac{37}{10})$ (b) $(\frac{-1}{10},-\frac{37}{10})$ (c) $(\frac{-1}{10},\frac{37}{10})$ (d) $(\frac{37}{10},\frac{-1}{10})$

65) Which one of the following statements is false?

(a) The image of a point $(\alpha\beta)$ about x-axis $(\alpha,-\beta)$
(b) The image of the line $ax+by+c=0$ about x-axis is $ax-by+c=0$
(c) The image of a point (α,β) about y-axis $(-\alpha,\beta)$
(d) The image of the line $ax+by+c=0$ about y-axis is $ax-by+c=0$

66) The image of the point (1,2) with respect to the line y=x is

(a) (-1,-2) (b) (2,1) (c) (2,-1) (d) (2,1)

67) The condition that the slope of one of the lines represented by $ax^2+2hxy+by^2=0$ is n times the slope of the other is

(a) $4nh^2=ab(1+n)^2$ (b) $8h^2=9ab$ (c) $4n=ab(1+n)^2$ (d) $4nh^2=ab$

68) The equation $3x^2+2hxy+3y^2=0$ represents a pair of straight lines passing through the origin. The two lines are

(a) real and distinct if $h^2 > 3$ (b) real and distinct if $h^2 > 0$ (c) real and distinct $h^2 > 6$ (d) real and distinct if $h^2-9=0$

69) Pair of lines perpendicular to the lines represented by $ax^2+2hxy+by^2=0$ and through origin is

(a) $ax^2+2hxy+by^2=0$ (b) $bx^2+2hxy+ay^2=0$ (c) $bx^2-2hxy+ay^2=0$ (d) $bx^2-2hxy+ay^2=0$

70) The angle between the lines $(x^2+y^2)\sin^2\alpha=(x\cos\alpha-y\beta)^2$

(a) α (b) 2α (c) $\alpha+\beta$ (d) None

71) If $h^2=ab$, then the lines represented by $ax^2+2hx+by^2=0$ are

(a) parallel (b) perpendicular (c) coincident (d) None

72) The equation of the bisectors of the angle between the lines represented by $3x^2-5xy+4y^2=0$ is

(a) $3x^2-5xy-3y^2=0$ (b) $3x^2+5xy+4y^2=0$ (c) $5x^2-2xy-5y^2=0$ (d) $5x^2-2xy+5y^2=0$

73) If co-ordinate axes are the angle bisectors of the pair of lines $ax^2+2hxy+by^2=0$ then

(a) a=b (b) h=0 (c) a+b=0 (d) $a^2+b^2=0$

74) The value λ for which the equation $12x^2-10xy+2y^2+11x-5y+\lambda=0$ represent a pair of straight lines is

(a) $\lambda=1$ (b) $\lambda=2$ (c) $\lambda=3$ (d) $\lambda=0$

75) The points (k+1,1),(2k+1,3) and (2k+2,2k) are collinear if

(a) k=-1 (b) $k=\frac{1}{2}$ (c) k=3 (d) k=2

76) The image of the point (3,8) in the line x+3y=7 is

(a) (1,4) (b) (-1,-4) (c) (-4,-1) (d) (1,-4)

77) If the points (2k,k)(k,2k) and (k,k)enclose a triangle of area 18 sq units, then the centroid of the triangle is

(a) (8,8) (b) (4,4) (c) (3,3) (d) (2,2)

78) The points (a,0),(0,b) and (1,1) will be collinear if

(a) a+b=1 (b) a+b=2 (c) $\frac{1}{a}+\frac{1}{b}=1$ (d) a+b=0

79) The angle between the lines 2x-y+5=0 and 3x+y+4=0 is

(a) 45^0 (b) 30^0 (c) 60^0 (d) 90^0

80) The gradient of one of the lines of $ax^2+2hxy+by^2=0$ is twice that of the other, then

(a) $h^2=ab$ (b) h=a+b (c) $8h^2=9ab$ (d) $9h^2=8ab$

81) The equation $x^2+kxy+y^2-5x-7y+6=0$ represents a pair of straight lines then k=

(a) $\frac{5}{3}$ (b) $\frac{10}{3}$ (c) $\frac{3}{2}$ (d) $\frac{3}{10}$

82) The equation of the straight line joining the origin to the point of intersection of y-x+7=0 and y+2x-2=0 is

(a) 3x+4y=0 (b) 3x-4y=0 (c) 4x-3y=0 (d) 4x+3y=0

83) Separate equation of lines for a pair of lines whose equation is $x^2+xy-12y^2=0$ are

(a) x+4y=0 and x+3y=0 (b) 2x-3y=0 and x-4y=0 (c) x-6y=0 and x-3y=0 (d) x+4y=0 and x-3y=0

84) The angle between the lines $x^2+4xy+y^2=0$ is

(a) 60^0 (b) 15^0 (c) 30^0 (d) 45^0

85) The distance between the parallel lines 3x-4y+9=0 and 6x-8y-15=0 is

(a) $\frac{-33}{10}$ (b) $\frac{10}{33}$ (c) $\frac{33}{10}$ (d) $\frac{33}{20}$

86) If one of the lines of $my^2+(1-m^2)xy-mx^2=0$ is a bisector of the angle between the lines xy=0 then m is

(a) $\frac{-1}{2}$ (b) -2 (c) 1 (d) 2

87) If one of the lines by $6x^2-xy+4cy^2=0$ is 3x+4y=0, then c=

(a) 1 (b) -1 (c) 3 (d) -3

88) The point (2,1) and (-3,5) are on

(a) Same side of the line 3x-2y+1=0 (b) Opposite sides of the line 3x-2y+1=0 (c) On the line 3x-2y+1=0 (d) On the line x+y=3

89) The co-ordinates of a point on x+y+3=0 whose distance from x+2y+2=0 is $\sqrt 5$, is

(a) (9,6) (b) (-9,6) (c) (6,-9) (d) (-9,-6)

90) If p is the length of perpendicular from origin to the line $\frac{x}{a}+\frac{y}{b}=1$ then

(a) $\frac{1}{p^2}=\frac{1}{a^2}+\frac{1}{b^2}$ (b) $\frac{1}{p^2}=\frac{1}{a^2}-\frac{1}{b^2}$ (c) $\frac{1}{p^2}=-\frac{1}{a^2}+\frac{1}{b^2}$ (d) $\frac{1}{p^2}=-\frac{1}{a^2}-\frac{1}{b^2}$

91) If O is the origin and Q is a variable point on $y^2=x$, then the locus of the mid-point of OQ is

(a) $y^2=2x$ (b) $2y^2=x$ (c) $4y^2=x$ (d) $y=2x^2$

92) The locus of a point which is equidistant from (-1,1) and (4,2) is

(a) 5x+3y+9=0 (b) 5x+3y-9=0 (c) 3x-5y=0 (d) 3x+5y-9=0

93) The locus of a point which is equidistant from (1,0) and (-1,0) is

(a) x-axis (b) y-axis (c) y=x (d) y=-x

94) If the co-ordinates of a variable point p be $(t+\frac{1}{t},t-\frac{1}{t})$ where t is the parameter then the locus of p

(a) xy=1 (b) $x^2+y^2=4$ (c) $x^2-y^2=4$ (d) $x^2-y^2=8$

95) The locus of a point which is collinear with the points (a,0) and (0,b) is

(a) x+y=1 (b) $\frac{x}{a}+\frac{y}{b}=1$ (c) x+y=ab (d) $\frac{x}{a}-\frac{y}{b}=1$

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1) (d) $3x^2-y^2=0$
2) (d) $y^2=4ax$
3) (c) (1,2)
4) (d) 3
5) (c) $\alpha+3\beta=11$
6) (b) $\frac{1}{2},-2$
7) (b) x+y-2=0
8) (b) x+y=1
9) (b) 5,5
10) (c) 2x+y=5
11) (a) $x+5y\pm5\sqrt2=0$
12) (c) x+y+5=0
13) (c) $\sqrt{6}$
14) (d) $\left(\frac{2}{5},\frac{3}{5}\right)$
15) (b) (4,1)
16) (a) (-3, -2)

17) (c) $\frac{12}{5}$
18) (b) $\frac{9}{2}$
19) (a) $k=3$
20) (b) 16 sq. units
21) (a) $-\frac{6}{7}$
22) (c) $\frac12a^2$
23) (a) -3
24) (c) $\frac{5}{9}$
25) (b) $x+y\tan\theta =0$
26) (c) circle
27) (b) line bisector
28) (b) 1
29) (b) $\frac{x}{a}+\frac{y}{b}=1$
30) (a) 0
31) (a) $5x+3y-20=0$
32) (c) rhombus
33) (c) $\frac{35}{2\sqrt{34}}$
34) (a) 90°
35) (b) 1
36) (c) 3
37) (c) (0,0)
38) (b) $\frac{28}{13}$
39) (b) -7
40) (a) $\frac\pi4$
41) (a) ${ x }^{ \frac { 2 }{ 3 } }+{ y }^{ \frac { 2 }{ 3 } }={ a }^{ \frac { 2 }{ 3 } }$
42) (a) 36
43) (c) $y+x+2=0$
44) (d) 12
45) (a) $\frac{1}{2}$
46) (b) neither parallel nor perpendicular
47) (c) (3, 1)
48) (d) $-\frac{1}{2}$
49) (a) 90°
50) (b) (1, 1)
51) (b) $\frac{-2}{3},\frac{8}{3}$
52) (d) $45^0,2$
53) (c) $x\pm y=0$
54) (a) $x+y=2$
55) (b) $x-y=0$
56) (b) $8x-5y-21=0$
57) (b) $x-y+2=0$
58) (d) $x\cos\theta+y\sin\theta=p$
59) (a) $x+y\sqrt 3=24$
60) (c) $|\alpha-\beta|=\frac{\pi}{2}$
61) (c) $4\sqrt 2$
62) (d) If $\alpha =0,p=0$, then the equation $x\cos\alpha+y\sin\alpha=$presents x-axis
63) (a) -1
64) (c) $(\frac{-1}{10},\frac{37}{10})$

65) (d) The image of the line ax+by+c=0 about y-axis is ax-by+c=0

66) (d) (2,1)

67) (a) $4nh^2=ab(1+n)^2$

68) (b) real and distinct if $h^2>0$

69) (c) $bx^2-2hxy+ay^2=0$

70) (b) 2\alpha

71) (c) coincident

72) (c) $5x^2-2xy-5y^2=0$

73) (b) h=0

74) (b) \lambda=2

75) (d) k=2

76) (b) (-1,-4)

77) (a) (8,8)

78) (c) \frac{1}{a}+\frac{1}{b}=1

79) (a) 45^0

80) (c) $8h^2=9ab$

81) (b) \frac{10}{3}

82) (d) 4x+3y=0

83) (d) x+4y=0 and x-3y=0

84) (a) 60^0

85) (c) \frac{33}{10}

86) (c) 1

87) (d) -3

88) (b) Opposite sides of the line 3x-2y+1=0

89) (b) (-9,6)

90) (a) \frac{1}{p^2}=\frac{1}{a^2}+\frac{1}{b^2}

91) (b) $2y^2=x$

92) (b) 5x+3y-9=0

93) (b) y-axis

94) (c) $x^2-y^2=4$

95) (b) \frac{x}{a}+\frac{y}{b}=1