

NO

Date

1. A 2. C 3. D 4. B

15. Simp.

5.  $\frac{1}{\sqrt{2}}$  6.  $\{(-2, \sqrt{2}) \cup (\sqrt{2}, \sqrt{2}) \cup (\sqrt{2}, 2)\}$  7.  $\frac{16}{3}$

8.  $(x+3)^2 + y^2 = \frac{8}{3}$  9. 2. 10. 10.

$\frac{1}{\sqrt{2}}$

$\sqrt{2}$

11.  $3x + y = -2x + b$

$$\begin{cases} x^2 - 4y^2 = 4 \\ 2x + y - b = 0 \end{cases} \Rightarrow \frac{x}{y} - 2 = 4, \quad y = -\frac{1}{2}x - \frac{b}{2}$$

$\frac{1-5k}{\sqrt{1-k^2}}$

$\sqrt{1-k^2}$

12.  $\frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}$   $a=2, b=\sqrt{\frac{10}{3}}$

$$\therefore y = \pm \frac{x}{4} \quad \frac{x^2}{4} - \frac{y^2}{\frac{10}{3}} = 1 \quad \frac{x^2}{4} - \frac{3y^2}{10} = 1$$

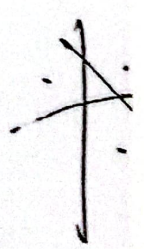
$\frac{1}{\cos + \sin}$

13.  $b = \sqrt{2}$   $\therefore y = \pm \frac{y^2}{2} - \frac{x^2}{2} = 1$

14. 1)  $\{(-\sqrt{6}, \sqrt{3}) \cup (-\sqrt{3}, \sqrt{3}) \cup (\sqrt{3}, \sqrt{6})\}$

2)  $(-\sqrt{3}, \sqrt{3})$

3)  $(-\sqrt{6}, \sqrt{3}) \cup (\sqrt{3}, \sqrt{6})$

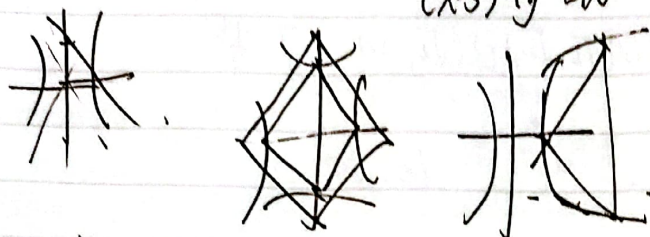




2313.

1.  $(15, 0)$ ,  $y = \pm \frac{4}{3}x$ ,  $(x-5)^2 + y^2 = 16$ ,  $x^2 - 10x + y^2 + 9 = 0$ ,  $4x + 11y = 0$ ,  $\frac{12d}{5} = 4$ .

15mb



1/2 y = a

1/2 y = a

1-5k  
1/12

$1/b \cot \alpha = \frac{1}{2} \cdot 32 \cdot \sin \theta$

$y = \pm 10x$

$2x^2 - (1-10x)^2 = 1$

$10 \pm \sqrt{2}$

$(2-10^2)x^2 + 20x - 2 = 0$

$(-2, 2)$

$410^2 + 8(2-10^2) > 0$

$-410^2 + 1600$

$410^2 < 1600$

$15 < 4$

$C(-1, 0)$

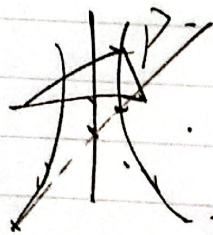
$y = x$

$\frac{13}{12}$



$b^2 - 4ac =$

$16^2 - 4 \cdot (b+4) \cdot (16-4b)$



$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$

$y = x - 2$

$b^2 x^2 - 4y^2 = 4b$

$(b+4)x^2 + 16x + 16 - 4b = 0$

$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$

$2b\sqrt{2} = \sqrt{2} \cdot \frac{1}{16 \pm 4}$

$(\sqrt{2}, b)$

$y = \pm \frac{a}{\sqrt{2}}x$

$\frac{1/\sqrt{2}x - y}{\sqrt{a^2 + 1}}$

$\frac{a}{\sqrt{\frac{a^2}{2} + 1}}$