(1) (b.)

$4x^2 + 6y^2 = 36$

$\frac{x^2}{9} + \frac{y^2}{4} = 1$ (elips horizontal)

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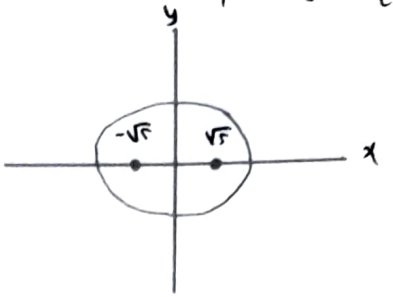
ALDEN LUTHFI

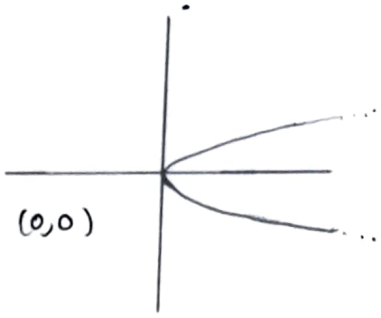
$c = \sqrt{a^2 - b^2} = \sqrt{9-4} = \sqrt{5}$

maka titik fokusnya $(\pm\sqrt{5}, 0)$



(2.) (b.) bentuk parabola horizontal

$y^2 = 4px \rightarrow y^2 = \frac{1}{5}x$ maka $p = \frac{1}{20}$

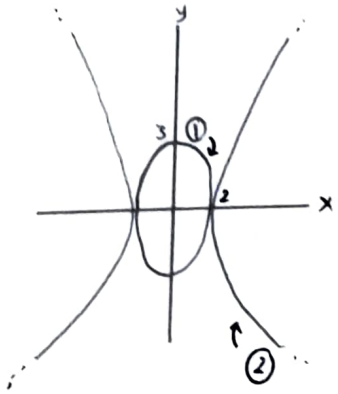


maka titik fokusnya $(\frac{1}{20}, 0)$, verteksnya $(0,0)$

dan direktriksnya $x = -\frac{1}{20}$

(3.) (a.) (1) $9x^2 - 4y^2 = 36 \rightarrow \frac{x^2}{4} - \frac{y^2}{9} = 1$ (hiperbola)

(2.) $9x^2 + 4y^2 = 36 \rightarrow \frac{x^2}{4} + \frac{y^2}{9} = 1$ (elips vertikal)



→ fokus elips $= \sqrt{a^2 - b^2} = \sqrt{5}$

titik $(0, \pm\sqrt{5})$

→ fokus hiperbola $\sqrt{a^2 + b^2} = \sqrt{13}$

titik ~~to~~ $(\pm\sqrt{13}, 0)$

→ verteks elips $(0, \pm 2)$ dan $(\pm 3, 0)$

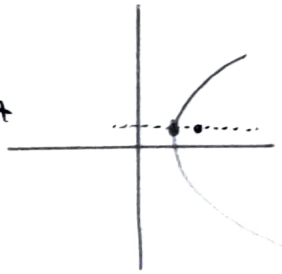
→ verteks hiperbola $(0, \pm 2)$

(4.) (b.) awal → ~~$x^2 = 8y$~~ $y^2 = 8x$ (parabola ~~vertikal~~ horizontal) fokus ~~(0,2)~~ (2,0) direktriks ~~$y = -2$~~ $x = -2$

verteks (0,0)

→ $(y-1)^2 = 8x$ geser ke ~~kanan~~ atas 1 unit

→ $(y-1)^2 = 8(x-2)$ geser ke kanan 2 unit



hasil fokus $(4,1)$

verteks $(2,1)$

direktriks $k = 0$