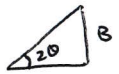
$\Rightarrow 16(x'^2\cos^2\theta + y'^2\sin^2\theta - 2x'y'\cos\theta\sin\theta) - 8\sqrt{2}(x'^2\cos\theta\sin\theta + x'y'\cos^2\theta - x'y'\sin^2\theta - y'^2\cos\theta\sin\theta) + 2(x'^2\sin^2\theta + y'^2\cos^2\theta + 2x'y'\cos\theta\sin\theta) + (8\sqrt{2} - 3)(x'\cos\theta - y'\sin\theta) - (6\sqrt{2} + 4)(x'\sin\theta + y'\cos\theta) - 7 = 0$

$\Rightarrow 16x'^2\cos^2\theta + 16y'^2\sin^2\theta - 32x'y'\cos\theta\sin\theta - 8\sqrt{2}x'^2\cos\theta\sin\theta - 8\sqrt{2}x'y'\cos^2\theta + 8\sqrt{2}x'y'\sin^2\theta + 8\sqrt{2}y'^2\cos\theta\sin\theta + 2x'^2\sin^2\theta + 2y'^2\cos^2\theta + 4x'y'\cos\theta\sin\theta + 8\sqrt{2}x'\cos\theta - 3x'\cos\theta - 8\sqrt{2}y'\sin\theta + 3y'\sin\theta - 6\sqrt{2}x'\sin\theta - 6\sqrt{2}y'\cos\theta - 4x'\sin\theta - 4y'\cos\theta - 7 = 0$

$\Rightarrow \sin^2\theta(16y'^2 + 8\sqrt{2}x'y' + 2x'^2) + \cos^2\theta(16x'^2 - 8\sqrt{2}x'y' + 2y'^2) + \cos\theta\sin\theta(-32x'y' - 8\sqrt{2}x'^2 + 8\sqrt{2}y'^2 + 4x'y') + \sin\theta(-8\sqrt{2}y' + 3y' - 6\sqrt{2}x' - 4x') + \cos\theta(8\sqrt{2}x' - 3x' - 6\sqrt{2}y' - 4y') - 7 = 0$



$\sin\theta = -\frac{1}{3}$

$\cos\theta = \frac{2\sqrt{2}}{3}$

$\Rightarrow \frac{1}{9}(16y'^2 + 8\sqrt{2}x'y' + 2x'^2) + \frac{8}{9}(16x'^2 - 8\sqrt{2}x'y' + 2y'^2) - \frac{2\sqrt{2}}{9}(-28x'y' - 8\sqrt{2}x'^2 + 8\sqrt{2}y'^2) - \frac{1}{3}(-8\sqrt{2}y' + 3y' - 6\sqrt{2}x' - 4x') + \frac{2\sqrt{2}}{3}(8\sqrt{2}x' - 3x' - 6\sqrt{2}y' - 4y') - 7 = 0$

$\Rightarrow \frac{16}{9}y^2 + \frac{8\sqrt{2}}{9}xy + \frac{2}{9}x^2 + \frac{128}{9}x^2 - \frac{64\sqrt{2}}{9}xy + \frac{16}{9}y^2 + \frac{56\sqrt{2}}{9}xy + \frac{32}{9}x^2 - \frac{32}{9}y^2 + \frac{8\sqrt{2}}{3}y - y + 2\sqrt{2}x + \frac{4}{3}x + \frac{32}{3}x - 2\sqrt{2}x - 8y - \frac{8\sqrt{2}}{3}y - 7 = 0$

$\Rightarrow x^2\left(\frac{2}{9} + \frac{128}{9} + \frac{32}{9}\right) + y^2\left(\frac{16}{9} + \frac{16}{9} - \frac{32}{9}\right) + x\left(2\sqrt{2} + \frac{4}{3} + \frac{32}{3} - 2\sqrt{2}\right) + y\left(\frac{8\sqrt{2}}{3} - 1 - 8 - \frac{8\sqrt{2}}{3}\right) - 7 = 0$

PARABOLA!!

$\Rightarrow 18x^2 + 12x - 9y - 7 = 0$

$\Rightarrow 18\left(\left(\frac{x+1}{3}\right)^2 - 1\right) = 5y + 7 \Rightarrow \left(\frac{x+1}{3}\right)^2 = \frac{(y+5)}{2}$

(A) (18.)

$(5x+20)^2 = 25x^2 + 200x + 400$

$(3y-3)^2 = 9y^2 - 18y + 9$

$25x + 200x = (5x+20)^2 - 400$

$-9y^2 + 18y = -(3y-3)^2 + 9$

maka $25x^2 - 9y^2 + 200x + 18y + 166 = 0$

$= (5x+20)^2 - 400 + 9 - (3y-3)^2 + 166 = 0$

$= (5x+20)^2 - (3y-3)^2 = 225$

$= \frac{(5x+20)^2}{15^2} - \frac{(3y-3)^2}{15^2} = 1 \Rightarrow \frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$

persamaan tersebut adalah hiperbola

(B.) (20) $A = 16$, $B = -8\sqrt{2}$, $C = 2$

Let $\theta = \frac{1}{2}\operatorname{arccot}\frac{A-C}{B} = \frac{1}{2}\operatorname{arccot}\frac{14}{-8\sqrt{2}}$

$\theta = -\frac{1}{2}\operatorname{arccot}\frac{7}{4\sqrt{2}}$

ANGKANYA GAENAK!!

$x = x'\cos\theta - y'\sin\theta$, $y = x'\sin\theta + y'\cos\theta$

$x^2 = x'^2\cos^2\theta + y'^2\sin^2\theta - 2x'y'\cos\theta\sin\theta$

$y^2 = x'^2\sin^2\theta + y'^2\cos^2\theta + 2x'y'\cos\theta\sin\theta$

$xy = x'^2\cos\theta\sin\theta - y'^2\cos\theta\sin\theta + x'y'\cos^2\theta - x'y'\sin^2\theta$

subtitusikan $16x^2 - 8\sqrt{2}xy + 2y^2 + (8\sqrt{2} - 3)x - (6\sqrt{2} + 4)y = 7$

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ALDEN LUTHFI