

No.:

Geometri Analitik (D)

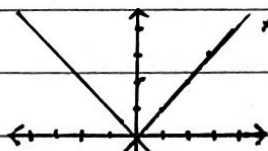
Date:

☐ Tunjukkan bahwa persamaan berikut menyajikan 2 garis lurus dan gambarkan grafiknya!

1. $x^2 - y^2 = 0$

$\hookrightarrow (x+y)(x-y) = 0$

$x = -y \quad \{ \quad x = y$



$x=y$

x	y
1	1
0	0
-1	-1

x	y	$x=-y$
1	-1	
0	0	
-1	1	

2. $y^2 - xy - 12x^2 = 0$

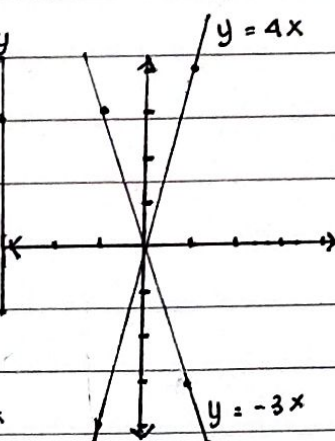
$\hookrightarrow (y+3x)(y-4x) = 0$

$y = -3x \quad \{ \quad y = 4x$

x	y
1	-3
0	0
-1	3

$(y = -3x)$

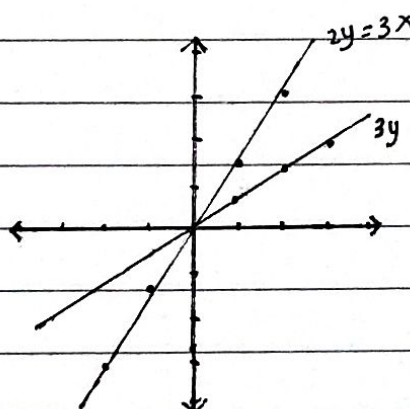
$(y = 4x)$



3. $6x^2 - 13xy + 6y^2 = 0$

$(3x-2y)(2x-3y) = 0$

$2y = 3x \quad \{ \quad 3y = 2x$



x	y
1	3/2
0	0
-1	-3/2

$(2y = 3x)$

x	y
1	2/3
0	0
-1	-2/3

$(3y = 2x)$

4. A(-4,0) dan B(4,0)

$AP^2 + BP^2 = 64$

$AP = \sqrt{(x_p - x_A)^2 + (y_p - y_A)^2}$

$= \sqrt{(x_p + 4)^2 + (y_p)^2}$

$AP^2 = (x_p + 4)^2 + (y_p)^2$

$BP = \sqrt{(x_p - x_B)^2 + (y_p - y_B)^2}$

$= \sqrt{(x_p - 4)^2 + (y_p)^2}$

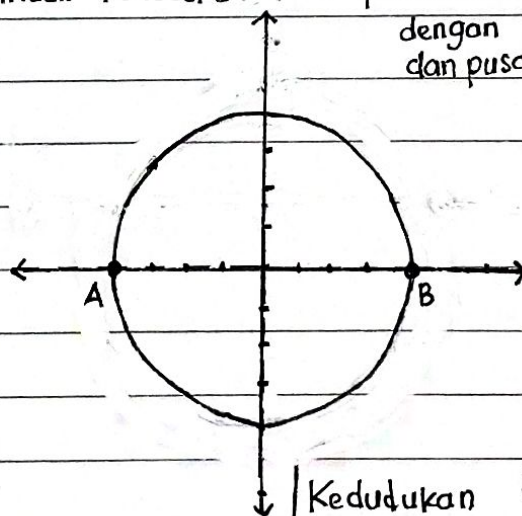
$BP^2 = (x_p - 4)^2 + y_p^2$

$AP^2 + BP^2 = 64$

$(x_p^2 + 8x_p + 16 + y_p^2) + (x_p^2 - 8x_p + 16 + y_p^2) = 64$

$2x_p^2 + 32 + 2y_p^2 = 64$

Persamaan kedudukan P = persamaan lingkaran

dengan $r = 4$
dan pusat di $O(0,0)$ 

Kedudukan P bisa dimana saja kecuali di titik A(-4,0) dan B(4,0). Karena ketika

dua titik segitiga berimpit, tidak akan menghasilkan segitiga.

KIKY I can do all heavy things

$x_p^2 + y_p^2 = 16$ (Persamaan kedudukan P)