Selasa, 24 /$\frac{03}{2020}$ Muhammad aulan Ardiansyah

Catatan

I

1 a. Pusat di $O(0,0)$ dan $r = 4$

$$x^2 + y^2 = r^2$$
$$x^2 + y^2 = 4^2$$
$$x^2 + y^2 = 16 \ / \ x^2 + y^2 - 16 = 0$$

b. Pusat di $O(0,0)$ dan $r = 2\sqrt{3}$

$$x^2 + y^2 = r^2$$
$$x^2 + y^2 = (2\sqrt{3})^2$$
$$x^2 + y^2 = 12 \ | \ x^2 + y^2 - 12 = 0$$

c. Pusat di $O(0,0)$ dan $r = \sqrt{13}$

$$x^2 + y^2 = r^2$$
$$x^2 + y^2 = (\sqrt{13})^2$$
$$x^2 + y^2 = 13 \ / \ x^2 + y^2 - 13 = 0$$

d. Pusat di $O(0,0)$ dan $r = 9$

$$x^2 + y^2 = r^2$$
$$x^2 + y^2 = 9^2$$
$$x^2 + y^2 = 81 \ / \ x^2 + y^2 - 81 = 0$$

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Mengenal diri sendir

Catatan

2. a. Pusat di P(2;3) dan r = 8

$(x-a)^2 + (y-b)^2 = r^2$

$(x-2)^2 + (y-(-3))^2 = 8^2$

$(x-2)^2 + (y+3)^2 = 64$

b. pusat di P(2,-3) dan $r = \sqrt{10}$

$(x-a)^2 + (y-b)^2 = r^2$

$(x-2)^2 + (y-(-3))^2 = (\sqrt{10})^2$

$(x-2)^2 + (y+3)^2 = 10$

3. Pusat di P(2,0) dan titik (2,4)

$(x-a)^2 + (y-b)^2 = r^2$

$(2-2)^2 + (0-4)^2 = r^2$

$0 + (-4)^2 = r^2$

$0 + 16 = r^2$

$r^2 = 16$

$r = \sqrt{16}$

$r = 4$

b. Pusat di P(2,0) dan titik (-1,-3)

$(x-a)^2 + (y-b)^2 = r^2$

$(2-(-1))^2 + (0-(-3))^2 = r^2$

$(2+1)^2 + 3^2 = r^2$

$9 + 9 = r^2$

$18 = r^2$

$r = \sqrt{18}$

$r = \sqrt{9 \times 2}$

$r = 3\sqrt{2}$

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'Kesabaran, sik...

II

Catatan

a. $x^2 + y^2 - 4x - 6y - 12 = 0$

$$\left. \begin{array}{l} a = -2 \\ b = -3 \end{array} \right\} \quad ab \Rightarrow \quad \frac{-a}{2} , \frac{-b}{2}$$

$r = \sqrt{(-2)^2 + (-3)^2 - (-12)}$

$= \sqrt{4 + 9 + 12}$

$= \sqrt{25}$

$= 5.$

Pusatnya $(2,3)$ dan $r = 5$

b. $(x-1)^2 + (y-5)^2 = 16$

$x^2 - 2(-1)x + (-1)^2 + y^2 - 2(-5)y + (-5)^2 = 16$

$\Rightarrow x^2 + 2x + 1 + y^2 + 10y + 25 = 16$

$\Rightarrow x^2 + y^2 + 2x + 10y + 26 - 16 = 0$

$x^2 + y^2 + 2x + 10y + 10 = 0$

$a = -1, b = -5$

$r = \sqrt{(-1)^2 + (-5)^2 - 10}$

$= \sqrt{1 + 25 - 10}$

$= \sqrt{26 - 10}$

$= \sqrt{16}$

$= 4$

$-3)$

$\sqrt{18}$

$= \sqrt{9 \times 2}$

$= 3\sqrt{2}$

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Catatan

2. a. $x^2 + y^2 = 9$ Melalui titik $(2, -5)$

$A(2, -5) \Rightarrow x^2 + y^2 = 9$

$2^2 + (-5)^2 = 9$

$4 + 25 = 9$

$29 > 9$

$A(2, -5)$ terletak di lingkaran $x^2 + y^2 = 9$

b. $(x-4)^2 + (y-3)^2 = 36$ di titik $(-2, 1)$

$A.(-2, 1) \Rightarrow (x-4)^2 + (y-3)^2 = 36$

$\Rightarrow (-2, -4)^2 + (1-3)^2 = 36$

$\Rightarrow (-6)^2 + (-2)^2 = 36$

$\Rightarrow 36 + 4 = 36$

$40 > 36$

$A(-2, 1)$ terletak di luar lingkaran $(x-4)^2 + (y-3)^2 = 36$

Q.

Catatan

C. $x^2 + y^2 + 0x - 6y + 9 = 0$ di titik $(-2,5)$

$A(-2,5) \rightarrow x^2 + y^2 + 5x - 6y + 9 = 0$

$\circ (-2)^2 + (5)^2 + 5(-2) - 6(5) + 9 = 0$

$4 + 25 - 10 - 30 + 9 = 0$

$29 - 10 - 30 + 9 = 0$

$19 - 30 + 9 = 0$

$-4 + 9 = 0$

$-2 < 0$

$A(-2,5)$ terletak dalam lingkaran $x^2 + y^2 + 8x - 6y + 9 = 0$

Tanda tangan Orang tua

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