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

$$r = \sqrt{x^2 + y^2} = \sqrt{(2\sqrt{3})^2 + (-2)^2} = \sqrt{16} = 4$$

$$\theta = \tan^{-1} \left(\frac{y}{x} \right) = \tan^{-1} \left(\frac{-2}{2\sqrt{3}} \right) = \frac{11}{6} \pi$$

$$\therefore P(4, \frac{11}{6} \pi)$$

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

$$r = \sqrt{x^2 + y^2} = \sqrt{(-3)^2 + (3\sqrt{3})^2} = \sqrt{36} = 6$$

$$\theta = \tan^{-1} \left(\frac{y}{x} \right) = \tan^{-1} \left(\frac{3\sqrt{3}}{-3} \right) = \frac{15}{9} \pi$$

$$\therefore P(6, \frac{15}{9} \pi)$$

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e) $r = 3 \cos \theta$
 $r^2 = 3 r \cos \theta$
 $x^2 + y^2 = 3x$
 $x^2 - 3x + y^2 = 0$

$$\left(x - \frac{3}{2}\right)^2 - \frac{9}{4} + y^2 = 0$$

$$\left(x - \frac{3}{2}\right)^2 + y^2 = \frac{9}{4}$$

\therefore Lingkaran dengan jari-jari $\frac{3}{2}$ dan Pusat $(\frac{3}{2}, 0)$ //

g) $r^2 \sin 2\theta = 8$
 $r^2 \cancel{x} \sin \theta \cos \theta = 8$
 $r \sin \theta \quad r \cos \theta = 4$
 $y \quad x = 4$
 $y = \frac{1}{4} x$

\therefore Garis lurus dengan persamaan $y = \frac{1}{4} x$ //

$$I) r = \frac{2}{1 + \sin \theta}$$

$$r + r \sin \theta = 2$$

$$\sqrt{x^2 + y^2} + y = 2$$

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

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

$$y = \frac{4 - x^2}{4}$$

∴ kurva terbuka ke bawah
dengan titik puncak pada
 $x = 2$ dan simetri $y = 0$ //

$$k) r = \frac{6}{3 \cos \theta + 2 \sin \theta}$$

$$3r \cos \theta + 2r \sin \theta = 6$$

$$3x + 2y = 6$$

$$y = \frac{6 - 3x}{2} = 3 - \frac{3}{2}x$$

∴ garis lurus dengan persamaan

$$y = 3 - \frac{3}{2}x //$$

gambar