diskusi kuis 6

Saturday, 06 April 2024 09:50

2. Tentukan 4 koordinat polar berbeda dari setiap titik kartesius berikut, dengan ketentuan $-2\pi \leq \theta \leq 2\pi$.

[redacted]

b. $C(10, -10\sqrt{3})$, $D\ (0, -2)$

$r = \sqrt{(x^2 + y^2)}$ $\theta = \arctan(\frac{y}{x})$

C (10, $-10\sqrt{3}$)

kuadran IV

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

$= \sqrt{400} = 20$

$\theta = \arctan\left(\frac{-10\sqrt{3}}{10}\right)$

$= \arctan(-\sqrt{3})$

$= \frac{5}{3}\pi$

$(20, \frac{5}{3}\pi)$ $(20, -\frac{1}{3}\pi)$

$(-20, \frac{2}{3}\pi)$ $(-20, -\frac{4}{3}\pi)$

D (0, -2)

$r = \sqrt{0^2 + (-2)^2}$

$= \sqrt{4} = 2$

$\theta = \arctan\left(\frac{-2}{0}\right)$

$= \arctan(-\infty)$

$= \frac{3}{2}\pi$

$(2, \frac{3}{2}\pi)$ $(2, -\frac{1}{2}\pi)$

$(-2, \frac{1}{2}\pi)$ $(-2, -\frac{3}{2}\pi)$