

Write Polar Equations of Conics

Name in English

If $e = \frac{1}{3}$ and vertices at $(-2, 0)$ and $(4, 0)$, Find the followings.

1. Calculate r .

2. Identify θ .

a) 0

b) $\frac{\pi}{2}$

c) π

d) $\frac{3\pi}{2}$

3. Identify the type of polar equation.

a) $r = \frac{ed}{1 + e \cos \theta}$

b) $r = \frac{ed}{1 - e \cos \theta}$

c) $r = \frac{ed}{1 + e \sin \theta}$

d) $r = \frac{ed}{1 - e \sin \theta}$

4. Identify directrix.

a) $x = 8$

b) $x = -8$

c) $y = 8$

d) $y = -8$

5. Identify the type of Conic.

a) Circle

b) Parabola

c) Ellipse

d) Hyperbola

6. Identify the answer.

a) $r = \frac{8}{3 + \sin \theta}$

b) $r = \frac{8}{3 - \sin \theta}$

c) $r = \frac{8}{3 - \cos \theta}$

d) $r = \frac{8}{3 + \cos \theta}$

If $e = 2.5$ and vertices at $(0, -3)$ and $(0, -7)$. Find the followings.

1. Calculate r .

2. Identify θ .

a) 0

b) $\frac{\pi}{2}$

c) π

d) $\frac{3\pi}{2}$

3. Identify the type of polar equation.

a) $r = \frac{ed}{1 + e \cos \theta}$

b) $r = \frac{ed}{1 - e \cos \theta}$

c) $r = \frac{ed}{1 + e \sin \theta}$

d) $r = \frac{ed}{1 - e \sin \theta}$

4. Identify directrix.

a) $x = -1.8$

b) $x = 1.8$

c) $y = -1.8$

d) $y = 1.8$

5. Identify the type of Conic.

a) Circle

b) Parabola

c) Ellipse

d) Hyperbola

7. Identify the answer.

a) $r = \frac{10.5}{1 + 2.5 \sin \theta}$

b) $r = \frac{10.5}{1 - 2.5 \sin \theta}$

c) $r = \frac{10.5}{1 - 2.5 \cos \theta}$

d) $r = \frac{10.5}{1 + 2.5 \cos \theta}$