

Pre Calculus Section 8 1 Polar Coordinate and Its Basic Graph

Lesson 199 | Precalculus | Polar coordinates and graphs

<https://www.youtube.com/watch?v=gfnsCgEfCgE>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

Convert the polar point $(20, 4\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

02

Convert the polar point $(22, 7\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

03

Convert the polar point $(22, 4\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

Pre Calculus Section 8 1 Polar Coordinate and Its Basic Graph

Lesson 199 | Precalculus | Polar coordinates and graphs

<https://www.youtube.com/watch?v=gfnsCgEfCgE>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

04

Convert the polar point $(26, 5\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

05

Convert the polar point $(18, 2\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

06

Convert the polar point $(28, 3\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

Pre Calculus Section 8 1 Polar Coordinate and Its Basic Graph

Lesson 199 | Precalculus | Polar coordinates and graphs

<https://www.youtube.com/watch?v=gfnsCgEfCgE>

Original practice aligned to the saved video title.

01

Convert the polar point $(20, 4\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

$x=r \cos \theta=-10$; $y=r \sin \theta=10\cdot\sqrt{3}$. Equivalent point $(-20, 10\pi/6)$, because reversing r and adding π preserves the point.

02

Convert the polar point $(22, 7\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

$x=r \cos \theta=-11\cdot\sqrt{3}$; $y=r \sin \theta=-11$. Equivalent point $(-22, 13\pi/6)$, because reversing r and adding π preserves the point.

03

Convert the polar point $(22, 4\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

$x=r \cos \theta=-11$; $y=r \sin \theta=11\cdot\sqrt{3}$. Equivalent point $(-22, 10\pi/6)$, because reversing r and adding π preserves the point.

Pre Calculus Section 8 1 Polar Coordinate and Its Basic Graph

Lesson 199 | Precalculus | Polar coordinates and graphs

<https://www.youtube.com/watch?v=gfnsCgEfCgE>

Original practice aligned to the saved video title.

04

Convert the polar point $(26, 5\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

$x=r \cos \theta = -13\sqrt{3}$; $y=r \sin \theta = 13$. Equivalent point $(-26, 11\pi/6)$, because reversing r and adding π preserves the point.

05

Convert the polar point $(18, 2\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

$x=r \cos \theta = 9$; $y=r \sin \theta = 9\sqrt{3}$. Equivalent point $(-18, 8\pi/6)$, because reversing r and adding π preserves the point.

06

Convert the polar point $(28, 3\pi/6)$ to rectangular coordinates. Give another equivalent polar representation with negative radius.

$x=r \cos \theta = 0$; $y=r \sin \theta = 28$. Equivalent point $(-28, 9\pi/6)$, because reversing r and adding π preserves the point.