

Polar Coordinates Practice

Plot the point with the given polar coordinates on your own polar graph paper.

1) $\left(2, \frac{7\pi}{12}\right)$

2) $\left(3, -\frac{17\pi}{12}\right)$

3) $\left(4, -\frac{5\pi}{4}\right)$

4) $\left(2, \frac{11\pi}{6}\right)$

5) $\left(-4, -\frac{7\pi}{4}\right)$

6) $\left(-4, \frac{5\pi}{6}\right)$

7) $\left(-3, \frac{7\pi}{4}\right)$

8) $(-4, -90^\circ)$

9) $\left(2, -\frac{\pi}{4}\right)$

10) $\left(-4, -\frac{\pi}{6}\right)$

11) $(-4, -240^\circ)$

12) $(-4, 0)$

13) $(-4, 285^\circ)$

14) $\left(-4, \frac{5\pi}{3}\right)$

15) $\left(1, \frac{\pi}{2}\right)$

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

17) $\left(4, -\frac{13\pi}{12}\right)$

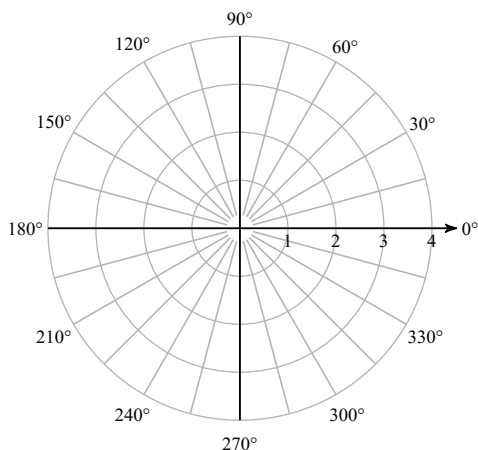
18) $(-2, -45^\circ)$

19) $\left(-1, \frac{13\pi}{12}\right)$

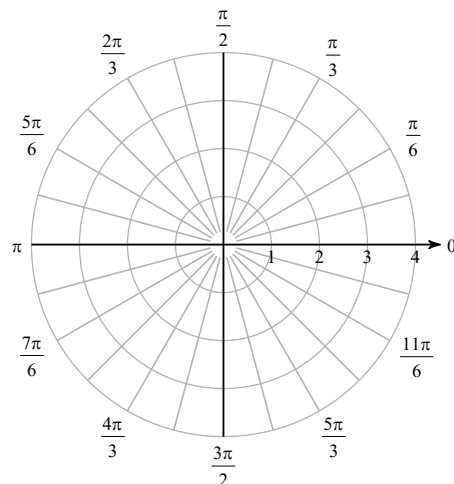
20) $(3, 330^\circ)$

Plot each polar coordinate and find all pairs of polar coordinates that describe the given point.

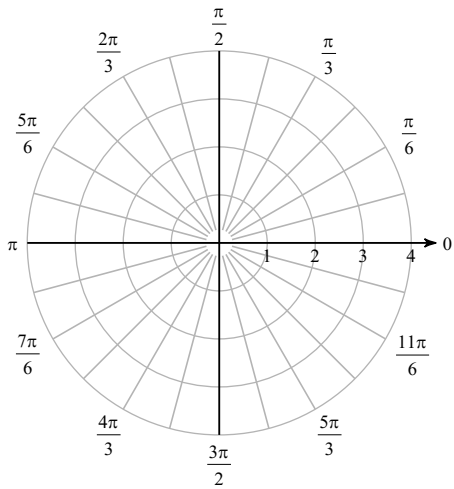
21) $(1, -30^\circ)$



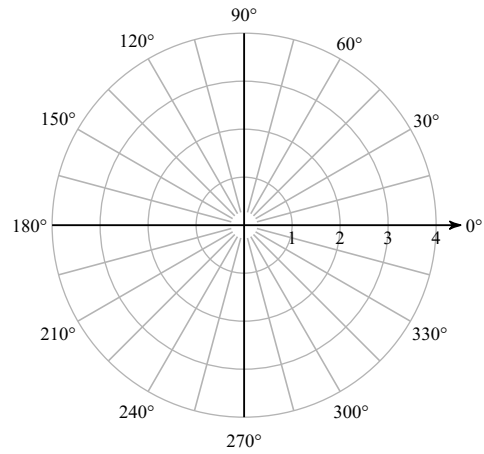
22) $\left(1, \frac{\pi}{12}\right)$



23) $(-2, 0)$

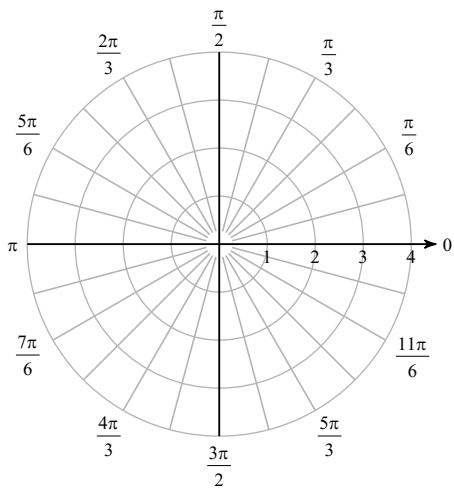


24) $(1, 150^\circ)$

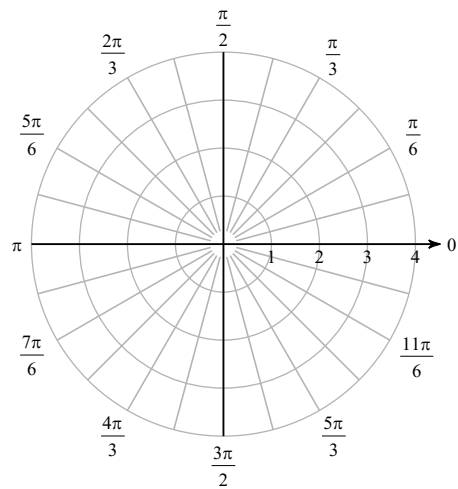


Plot the two given points then find the distance between them.

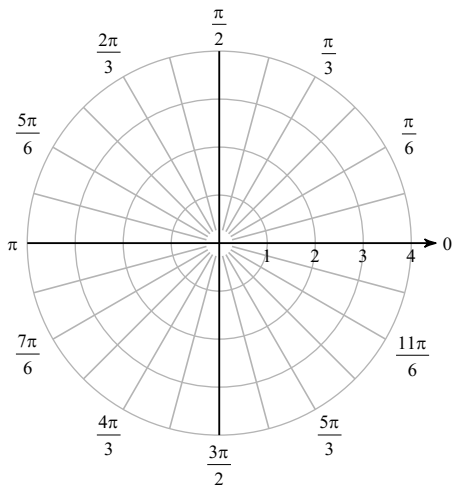
25) $\left(-1, -\frac{\pi}{3}\right), \left(-3, \frac{7\pi}{6}\right)$



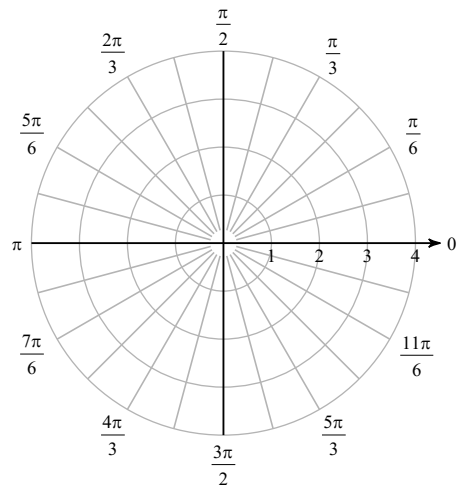
26) $\left(-1, \frac{7\pi}{4}\right), \left(-3, \frac{\pi}{4}\right)$



27) $\left(1, -\frac{11\pi}{6}\right), \left(-1, \frac{11\pi}{12}\right)$

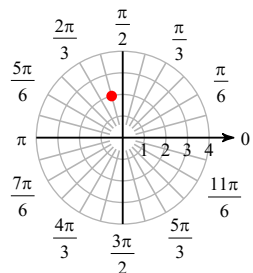


28) $\left(-4, \frac{23\pi}{12}\right), \left(-4, \frac{5\pi}{12}\right)$

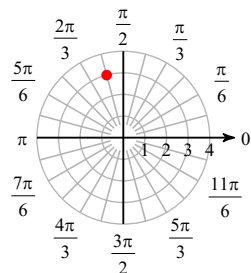


Answers to Polar Coordinates Practice

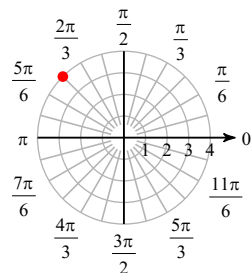
1)



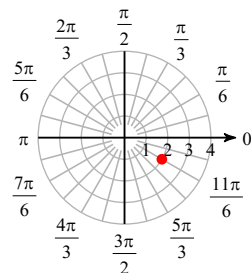
2)



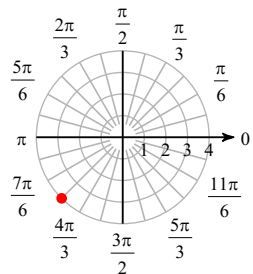
3)



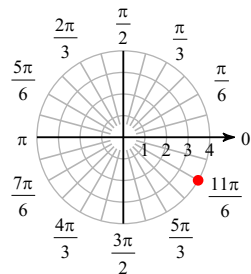
4)



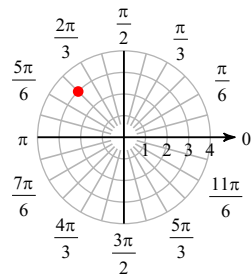
5)



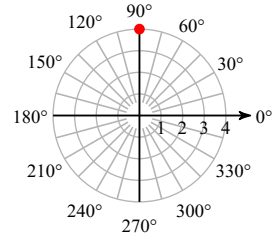
6)



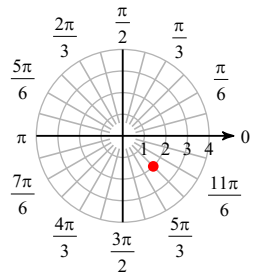
7)



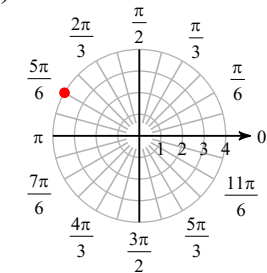
8)



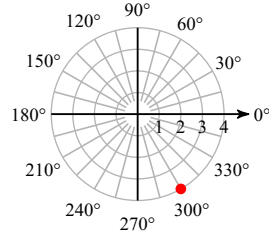
9)



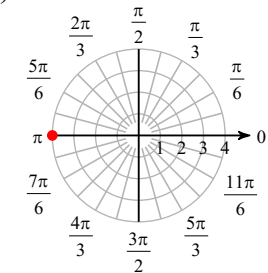
10)



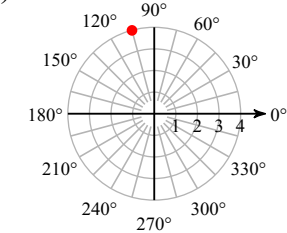
11)



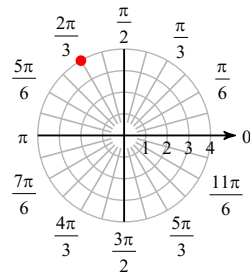
12)



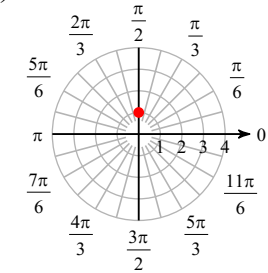
13)



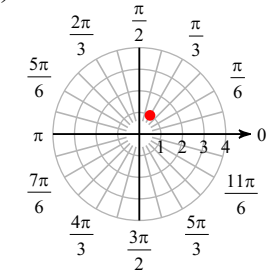
14)



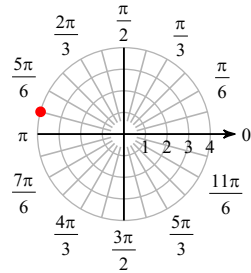
15)



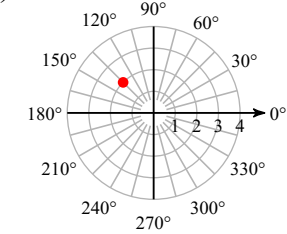
16)



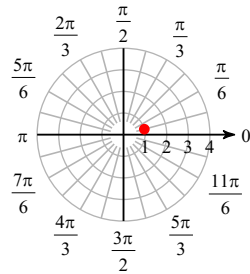
17)



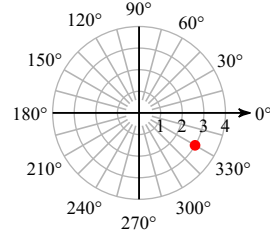
18)



19)



20)



21) $(1, -30^\circ + 360n^\circ)$ and $(-1, 150^\circ + 360n^\circ)$
where n is an integer

23) $(-2, 0 + 2n\pi)$ and $(2, 0 + (2n + 1)\pi)$
where n is an integer

25) $\sqrt{10}$

26) $\sqrt{10}$

22) $\left(1, \frac{\pi}{12} + 2n\pi\right)$ and $\left(-1, \frac{\pi}{12} + (2n + 1)\pi\right)$
where n is an integer

24) $(1, 150^\circ + 360n^\circ)$ and $(-1, 330^\circ + 360n^\circ)$
where n is an integer

27) $\sqrt{2 - \sqrt{2}}$

28) $4\sqrt{2}$