

<9장 연습문제 정답>

연습문제 9.1

1. (a) $\left(2, -\frac{15}{8}\pi\right), \left(-2, \frac{9}{8}\pi\right), \left(-2, -\frac{7}{8}\pi\right)$

(b) $\left(3, -\frac{8}{7}\pi\right), \left(-3, \frac{13}{7}\pi\right), \left(-3, -\frac{1}{7}\pi\right)$

(c) $\left(4, \frac{12}{7}\pi\right), \left(-4, \frac{5}{7}\pi\right), \left(-4, -\frac{9}{7}\pi\right)$

(d) $\left(1, \frac{7}{9}\pi\right), \left(-1, \frac{16}{9}\pi\right), \left(-1, -\frac{2}{9}\pi\right)$

(e) $\left(3, \frac{7}{6}\pi\right), \left(3, -\frac{5}{6}\pi\right), \left(-3, -\frac{11}{6}\pi\right)$

(f) $\left(4, \frac{1}{5}\pi\right), \left(4, -\frac{9}{5}\pi\right), \left(-4, -\frac{4}{5}\pi\right)$

(g) $\left(7, \frac{1}{4}\pi\right), \left(7, -\frac{7}{4}\pi\right), \left(-7, \frac{5}{4}\pi\right)$

(h) $\left(6, \frac{2}{11}\pi\right), \left(6, -\frac{20}{11}\pi\right), \left(-6, \frac{13}{11}\pi\right)$

3. (a) $(\sqrt{10}, \tan^{-1} 3)$

(b) $(\sqrt{29}, \tan^{-1} \frac{5}{2})$

(c) $\left(\sqrt{13}, \tan^{-1} \left(-\frac{3}{2}\right)\right)$

(d) $(\sqrt{37}, \tan^{-1} (-6))$

(e) $\left(5, \tan^{-1} \left(-\frac{4}{3}\right)\right)$

(f) $\left(\sqrt{53}, \tan^{-1} \left(-\frac{7}{2}\right)\right)$

(g) $(2\sqrt{5}, \tan^{-1} 2)$

(h) $(2\sqrt{5}, \tan^{-1} \frac{1}{2})$

5. (a) $x^2 + y^2 = 121$

(b) $x^2 + y^2 = 49$

(c) $y = -x$

(d) $y = \sqrt{3}x$

(e) $x^2 + y^2 = 3y$

(f) $x^2 + y^2 = 4x$

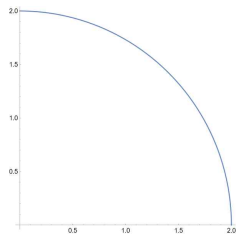
(g) $(x^2 + y^2) \sqrt{x^2 + y^2} = x$

(h) $(x^2 + y^2)^2 = 2xy$

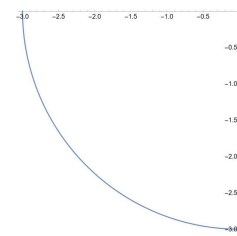
연습문제 9.2

1.

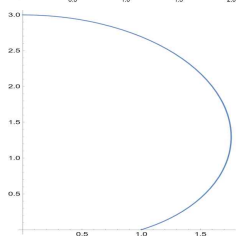
(a)



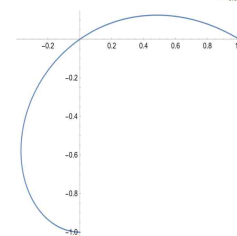
(b)



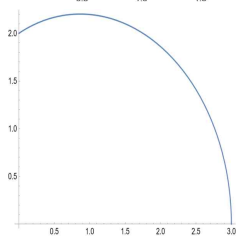
(c)



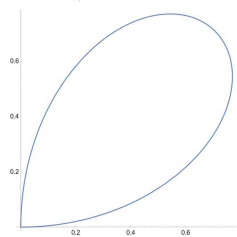
(d)



(e)

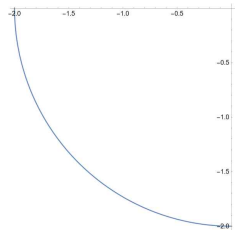


(f)

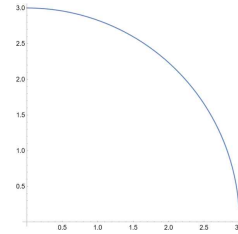


3.

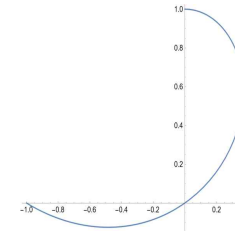
(a)



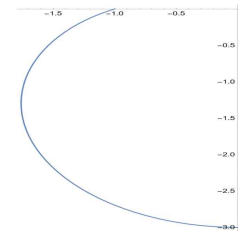
(b)



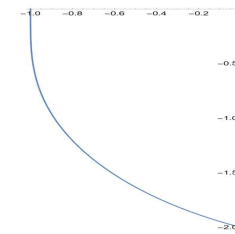
(c)



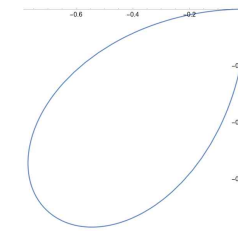
(d)



(e)

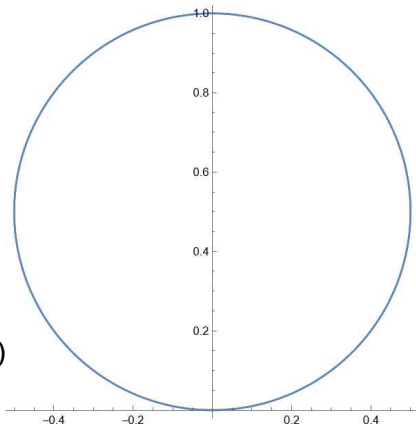


(f)

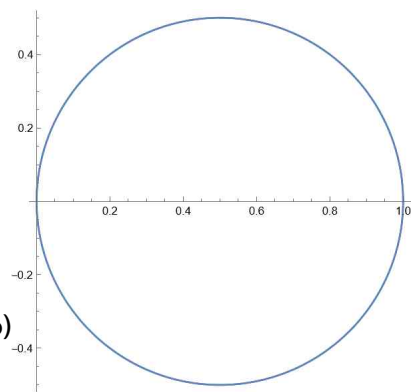


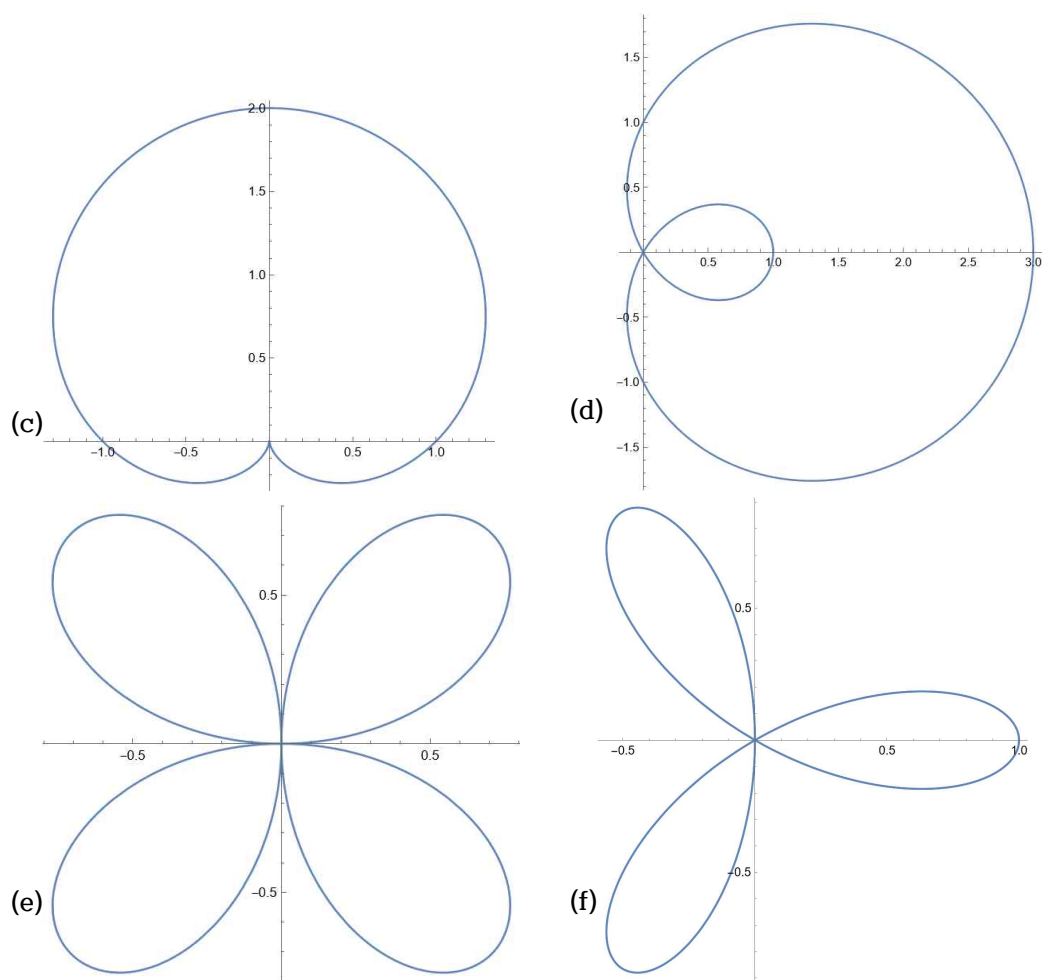
5.

(a)



(b)





연습문제 9.3

1. (a) $\frac{1}{2}$

(b) $\frac{1}{3}$

(c) $\frac{18}{5\sqrt{5}}$

(d) $\frac{3}{2\sqrt{2}}$

(e) $\frac{46}{7\sqrt{7}}$

(f) 1

(g) $\frac{58}{13\sqrt{13}}$

(h) 1

3. (a) 점 Q 에서 더 많이 휘었다.

(b) 점 P 에서 더 많이 휘었다.

(c) 점 P 에서 더 많이 휘었다.

(d) 점 Q 에서 더 많이 휘었다.