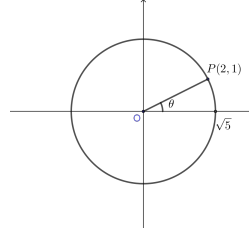


신비, 미니테스트 3

문제 1) 각도 θ 의 동경을 OP 라고 할 때, $P = (2, 1)$ 이다.

$$\begin{aligned}\sin \theta &= \frac{1}{\sqrt{5}} \\ \cos \theta &= \frac{2}{\sqrt{5}} \\ \tan \theta &= \frac{1}{2}\end{aligned}$$

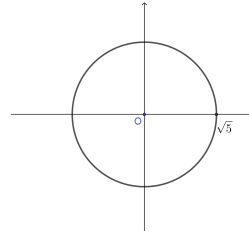


이때 다음 각도들에 대한 삼각비의 값을 차례로 구하여라.

- (1) $\theta - 2\pi$ (2) $-\theta$ (3) $\theta - \pi$ (4) $\frac{\pi}{2} - \theta$

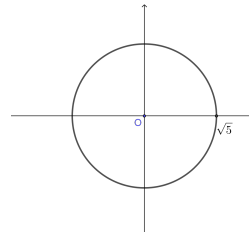
(1)

$$\begin{aligned}\sin(\theta - 2\pi) &= \\ \cos(\theta - 2\pi) &= \\ \tan(\theta - 2\pi) &= \end{aligned}$$



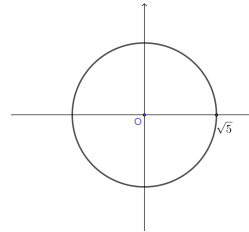
(2)

$$\begin{aligned}\sin(-\theta) &= \\ \cos(-\theta) &= \\ \tan(-\theta) &= \end{aligned}$$



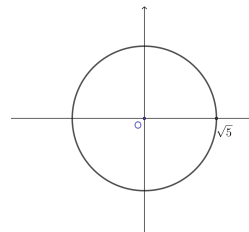
(3)

$$\begin{aligned}\sin(\theta - \pi) &= \\ \cos(\theta - \pi) &= \\ \tan(\theta - \pi) &= \end{aligned}$$



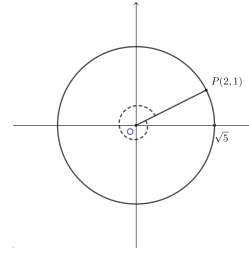
(4)

$$\begin{aligned}\sin\left(\frac{\pi}{2} - \theta\right) &= \\ \cos\left(\frac{\pi}{2} - \theta\right) &= \\ \tan\left(\frac{\pi}{2} - \theta\right) &= \end{aligned}$$

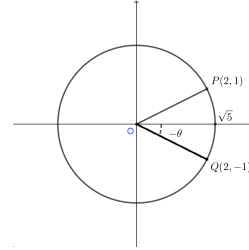


답 1)

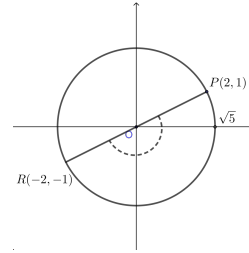
$$\begin{aligned}
 (1) \quad & \sin(\theta - 2\pi) = \frac{1}{\sqrt{5}} \\
 & \cos(\theta - 2\pi) = \frac{2}{\sqrt{5}} \\
 & \tan(\theta - 2\pi) = \frac{1}{2}
 \end{aligned}$$



$$\begin{aligned}
 (2) \quad & \sin(-\theta) = -\frac{1}{\sqrt{5}} \\
 & \cos(-\theta) = \frac{2}{\sqrt{5}} \\
 & \tan(-\theta) = -\frac{1}{2}
 \end{aligned}$$



$$\begin{aligned}
 (3) \quad & \sin(\theta - \pi) = -\frac{1}{\sqrt{5}} \\
 & \cos(\theta - \pi) = -\frac{2}{\sqrt{5}} \\
 & \tan(\theta - \pi) = \frac{1}{2}
 \end{aligned}$$



$$\begin{aligned}
 (4) \quad & \sin\left(\frac{\pi}{2} - \theta\right) = \frac{2}{\sqrt{5}} \\
 & \cos\left(\frac{\pi}{2} - \theta\right) = \frac{1}{\sqrt{5}} \\
 & \tan\left(\frac{\pi}{2} - \theta\right) = 2
 \end{aligned}$$

