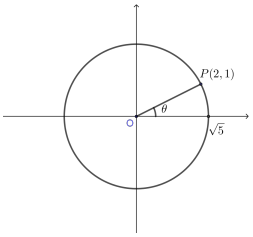
신비, 미니테스트 3

문제 1) 각도 θ의 동경을 OP라고 할 때, $P = (2, 1)$이다.

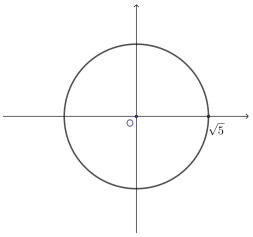
$$\sin\theta = \frac{1}{\sqrt{5}}$$
$$\cos\theta = \frac{2}{\sqrt{5}}$$
$$\tan\theta = \frac{1}{2}$$



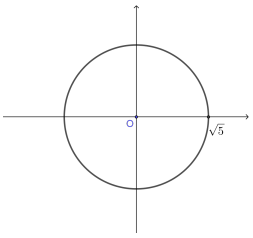
이때 다음 각도들에 대한 삼각비의 값을 차례로 구하여라.

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

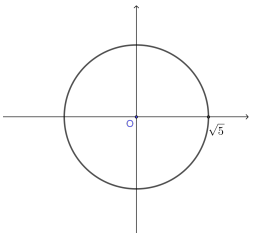
(1)
$$\sin(\theta - 2\pi) =$$
$$\cos(\theta - 2\pi) =$$
$$\tan(\theta - 2\pi) =$$



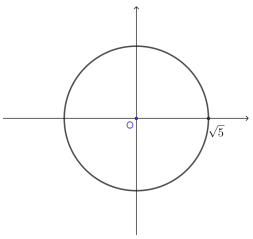
(2)
$$\sin(-\theta) =$$
$$\cos(-\theta) =$$
$$\tan(-\theta) =$$



(3)
$$\sin(\theta - \pi) =$$
$$\cos(\theta - \pi) =$$
$$\tan(\theta - \pi) =$$



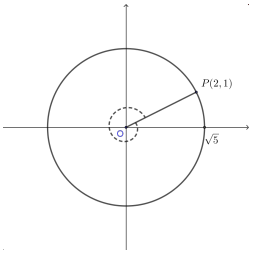
(4)
$$\sin(\tfrac{\pi}{2} - \theta) =$$
$$\cos(\tfrac{\pi}{2} - \theta) =$$
$$\tan(\tfrac{\pi}{2} - \theta) =$$



답 1)

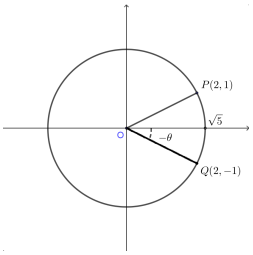
(1)

$$\sin(\theta - 2\pi) = \frac{1}{\sqrt{5}}$$
$$\cos(\theta - 2\pi) = \frac{2}{\sqrt{5}}$$
$$\tan(\theta - 2\pi) = \frac{1}{2}$$



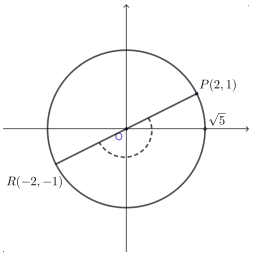
(2)

$$\sin(-\theta) = -\frac{1}{\sqrt{5}}$$
$$\cos(-\theta) = \frac{2}{\sqrt{5}}$$
$$\tan(-\theta) = -\frac{1}{2}$$



(3)

$$\sin(\theta - \pi) = -\frac{1}{\sqrt{5}}$$
$$\cos(\theta - \pi) = -\frac{2}{\sqrt{5}}$$
$$\tan(\theta - \pi) = \frac{1}{2}$$



(4)

$$\sin(\frac{\pi}{2} - \theta) = \frac{2}{\sqrt{5}}$$
$$\cos(\frac{\pi}{2} - \theta) = \frac{1}{\sqrt{5}}$$
$$\tan(\frac{\pi}{2} - \theta) = 2$$