

## 77. 三角関数の値

$$(1) \sin \frac{2}{3}\pi = \frac{\sqrt{3}}{2}, \cos \frac{2}{3}\pi = -\frac{1}{2}, \tan \frac{2}{3}\pi = -\sqrt{3}$$

$$(2) \sin\left(-\frac{\pi}{6}\right) = -\frac{1}{2}, \cos\left(-\frac{\pi}{6}\right) = \frac{\sqrt{3}}{2}, \tan\left(-\frac{\pi}{6}\right) = -\frac{1}{\sqrt{3}}$$

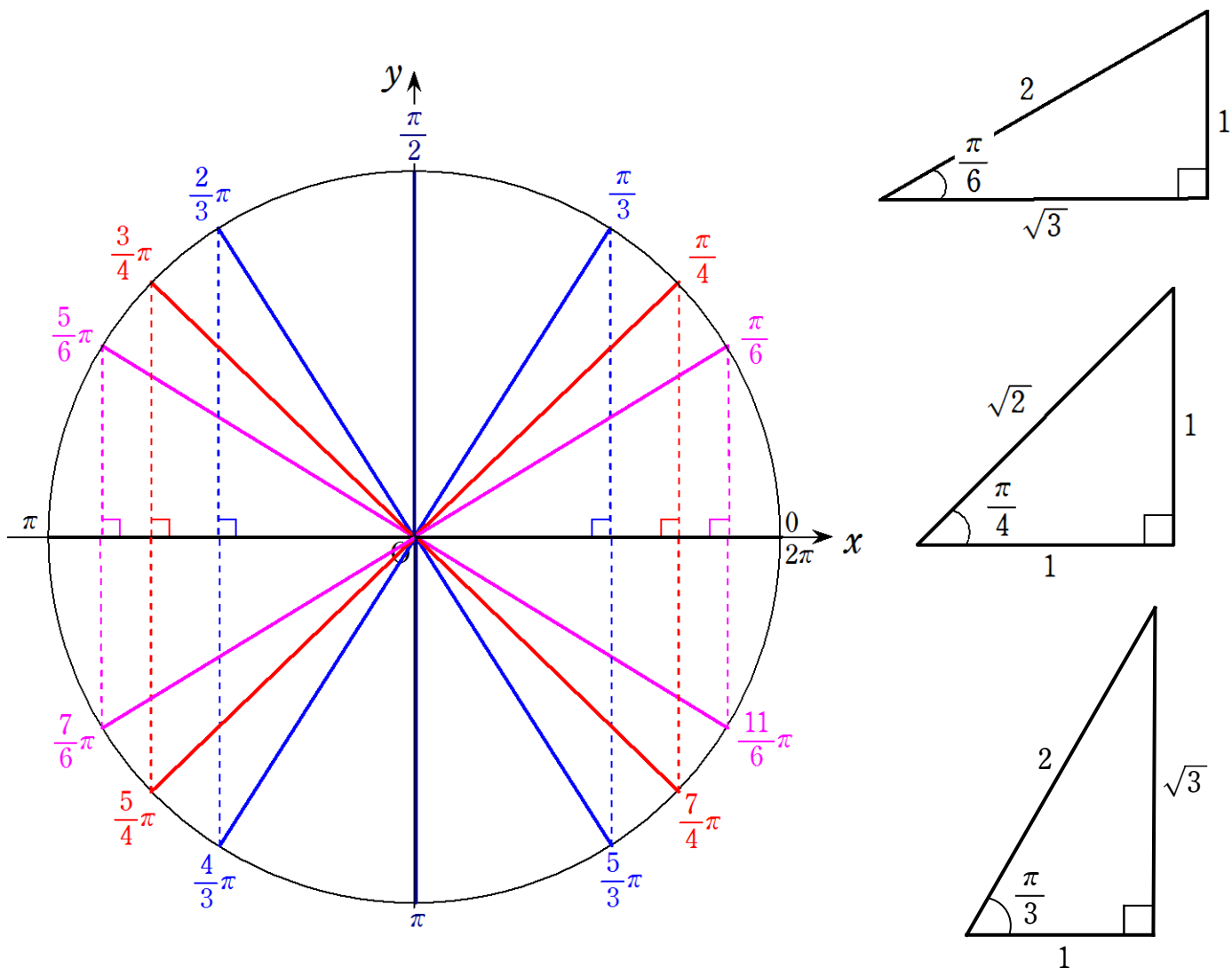
$$(3) \sin 0 = 0, \cos 0 = 1, \tan 0 = 0 \quad (4) \sin \frac{\pi}{2} = 1, \cos \frac{\pi}{2} = 0, \tan \frac{\pi}{2} : \text{なし}$$

$$(5) \sin \pi = 0, \cos \pi = -1, \tan \pi = 0 \quad (6) \sin \frac{3}{2}\pi = -1, \cos \frac{3}{2}\pi = 0, \tan \frac{3}{2}\pi : \text{なし}$$

$$(7) \sin \frac{17}{6}\pi = \sin \frac{5}{6}\pi = \frac{1}{2}, \cos \frac{17}{6}\pi = \cos \frac{5}{6}\pi = -\frac{\sqrt{3}}{2}, \tan \frac{17}{6}\pi = \tan \frac{5}{6}\pi$$

$$(8) \sin\left(-\frac{3}{4}\pi\right) = -\frac{1}{\sqrt{2}}, \cos\left(-\frac{3}{4}\pi\right) = \frac{1}{\sqrt{2}}, \tan\left(-\frac{3}{4}\pi\right) = 1$$

次の角の  $\sin \theta$ ,  $\cos \theta$ ,  $\tan \theta$  の値をそれぞれ求めよ。



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

$$\sin \frac{2}{3}\pi = \frac{\sqrt{3}}{2}, \quad \cos \frac{2}{3}\pi = -\frac{1}{2}, \quad \tan \frac{2}{3}\pi = -\sqrt{3}$$

$$(2) \theta = -\frac{\pi}{6}$$

$$\sin\left(-\frac{\pi}{6}\right) = -\frac{1}{2}, \quad \cos\left(-\frac{\pi}{6}\right) = \frac{\sqrt{3}}{2}, \quad \tan\left(-\frac{\pi}{6}\right) = -\frac{1}{\sqrt{3}}$$

$$(3) \theta = 0$$

$$\sin 0 = 0, \quad \cos 0 = 1, \quad \tan 0 = 0$$

$$(4) \theta = \frac{\pi}{2}$$

$$\sin \frac{\pi}{2} = 1, \quad \cos \frac{\pi}{2} = 0, \quad \tan \frac{\pi}{2} : \text{なし}$$

$$(5) \theta = \pi$$

$$\sin \pi = 0, \quad \cos \pi = -1, \quad \tan \pi = 0$$

$$(6) \theta = \frac{3}{2}\pi$$

$$\sin \frac{3}{2}\pi = -1, \quad \cos \frac{3}{2}\pi = 0, \quad \tan \frac{3}{2}\pi : \text{なし}$$

$$(7) \theta = \frac{17}{6}\pi$$

$$\sin \frac{17}{6}\pi = \sin \frac{5}{6}\pi = \frac{1}{2}, \quad \cos \frac{17}{6}\pi = \cos \frac{5}{6}\pi = -\frac{\sqrt{3}}{2}, \quad \tan \frac{17}{6}\pi = \tan \frac{5}{6}\pi$$

$$(8) \theta = -\frac{3}{4}\pi$$

$$\sin\left(-\frac{3}{4}\pi\right) = -\frac{1}{\sqrt{2}}, \quad \cos\left(-\frac{3}{4}\pi\right) = \frac{1}{\sqrt{2}}, \quad \tan\left(-\frac{3}{4}\pi\right) = 1$$