

三角関数の相互関係

$$\sin^2 \theta + \cos^2 \theta = 1 \quad \cdots (1)$$

$$\tan \theta = \frac{\sin \theta}{\cos \theta} \quad \cdots (2)$$

$$\tan^2 \theta + 1 = \frac{1}{\cos^2 \theta} \quad \cdots (3)$$

例 1 $\sin \theta + \cos \theta = \frac{1}{2}$ のとき、次の値を求めよ。

(1) $\sin \theta \cos \theta$, (2) $\sin^3 \theta + \cos^3 \theta$

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答 $\sin \theta \cos \theta =$

(2) $\sin^3 \theta + \cos^3 \theta$

答 $\sin^3 \theta + \cos^3 \theta =$

問 1 $\sin \theta - \cos \theta = \frac{1}{5}$ のとき、次の値を求めよ。

(1) $\sin \theta \cos \theta$ (2) $\sin^3 \theta - \cos^3 \theta$

(3) $\tan \theta + \frac{1}{\tan \theta}$ (4) $(\sin \theta + \cos \theta)^2$

(1) $\sin \theta \cos \theta$

答 $\sin \theta \cos \theta =$

(2) $\sin^3 \theta - \cos^3 \theta$

(3) $\tan \theta + \frac{1}{\tan \theta}$ **答** $\sin^3 \theta - \cos^3 \theta =$

(4) $(\sin \theta + \cos \theta)^2$ **答** $\tan \theta + \frac{1}{\tan \theta} =$

答 $(\sin \theta + \cos \theta)^2 =$

