

1. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \cos(\theta + \pi) =$$

$$(2) \quad \cos(\theta + 2\pi) =$$

$$(3) \quad \sin(\theta - \pi) =$$

$$(4) \quad \cos(-\theta) =$$

$$(5) \quad \sin\left(\theta + \frac{\pi}{2}\right) =$$

$$(6) \quad \sin\left(\theta - \frac{\pi}{2}\right) =$$

$$(7) \quad \sin(\theta + \pi) =$$

$$(8) \quad \sin(\theta + 2\pi) =$$

$$(9) \quad \cos(\theta + \pi) =$$

$$(10) \quad \sin(\theta - \pi) =$$

$$(11) \quad \cos\left(\theta - \frac{\pi}{2}\right) =$$

$$(12) \quad \cos(-\theta) =$$

$$(13) \quad \cos(\theta + 2\pi) =$$

$$(14) \quad \cos(\theta - \pi) =$$

$$(15) \quad \sin(\theta + \pi) =$$

$$(16) \quad \sin\left(\theta - \frac{\pi}{2}\right) =$$

$$(17) \quad \cos\left(\theta - \frac{\pi}{2}\right) =$$

$$(18) \quad \cos(\theta + \pi) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan\left(\theta - \frac{\pi}{2}\right) =$$

$$(20) \quad \tan(\theta - \pi) =$$

$$(21) \quad \tan\left(\theta + \frac{\pi}{2}\right) =$$

$$(22) \quad \tan(-\theta) =$$

$$(23) \quad \tan(\theta + \pi) =$$

$$(24) \quad \tan(\theta + 2\pi) =$$

2. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \sin(\theta - \pi) =$$

$$(2) \quad \cos(-\theta) =$$

$$(3) \quad \sin(-\theta) =$$

$$(4) \quad \sin(\theta + \pi) =$$

$$(5) \quad \sin\left(\theta + \frac{\pi}{2}\right) =$$

$$(6) \quad \sin\left(\theta - \frac{\pi}{2}\right) =$$

$$(7) \quad \cos\left(\theta + \frac{\pi}{2}\right) =$$

$$(8) \quad \cos(\theta - \pi) =$$

$$(9) \quad \sin(-\theta) =$$

$$(10) \quad \cos(\theta + \pi) =$$

$$(11) \quad \sin(\theta + 2\pi) =$$

$$(12) \quad \sin\left(\theta + \frac{\pi}{2}\right) =$$

$$(13) \quad \sin\left(\theta - \frac{\pi}{2}\right) =$$

$$(14) \quad \cos(\theta - \pi) =$$

$$(15) \quad \sin(\theta + \pi) =$$

$$(16) \quad \cos(\theta + \pi) =$$

$$(17) \quad \sin(\theta - \pi) =$$

$$(18) \quad \sin(\theta + 2\pi) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan(\theta - \pi) =$$

$$(20) \quad \tan\left(\theta + \frac{\pi}{2}\right) =$$

$$(21) \quad \tan(-\theta) =$$

$$(22) \quad \tan(\theta + \pi) =$$

$$(23) \quad \tan\left(\theta - \frac{\pi}{2}\right) =$$

$$(24) \quad \tan(\theta + 2\pi) =$$

3. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \cos \left(\theta + \frac{\pi}{2} \right) =$$

$$(2) \quad \sin \left(\theta - \frac{\pi}{2} \right) =$$

$$(3) \quad \sin (-\theta) =$$

$$(4) \quad \cos (-\theta) =$$

$$(5) \quad \sin \left(\theta + \frac{\pi}{2} \right) =$$

$$(6) \quad \cos (\theta + \pi) =$$

$$(7) \quad \cos (\theta - \pi) =$$

$$(8) \quad \sin \left(\theta - \frac{\pi}{2} \right) =$$

$$(9) \quad \sin (\theta + 2\pi) =$$

$$(10) \quad \sin (\theta - \pi) =$$

$$(11) \quad \sin \left(\theta + \frac{\pi}{2} \right) =$$

$$(12) \quad \cos (\theta + 2\pi) =$$

$$(13) \quad \cos \left(\theta + \frac{\pi}{2} \right) =$$

$$(14) \quad \cos (-\theta) =$$

$$(15) \quad \sin (\theta + 2\pi) =$$

$$(16) \quad \sin \left(\theta - \frac{\pi}{2} \right) =$$

$$(17) \quad \cos \left(\theta - \frac{\pi}{2} \right) =$$

$$(18) \quad \sin \left(\theta + \frac{\pi}{2} \right) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan (\theta - \pi) =$$

$$(20) \quad \tan (-\theta) =$$

$$(21) \quad \tan (\theta + \pi) =$$

$$(22) \quad \tan \left(\theta + \frac{\pi}{2} \right) =$$

$$(23) \quad \tan \left(\theta - \frac{\pi}{2} \right) =$$

$$(24) \quad \tan (\theta - \pi) =$$

4. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \sin(\theta + \pi) =$$

$$(2) \quad \cos\left(\theta + \frac{\pi}{2}\right) =$$

$$(3) \quad \cos(\theta + 2\pi) =$$

$$(4) \quad \sin(\theta - \pi) =$$

$$(5) \quad \cos(\theta + \pi) =$$

$$(6) \quad \sin(-\theta) =$$

$$(7) \quad \sin(\theta + \pi) =$$

$$(8) \quad \cos(-\theta) =$$

$$(9) \quad \cos\left(\theta + \frac{\pi}{2}\right) =$$

$$(10) \quad \cos\left(\theta - \frac{\pi}{2}\right) =$$

$$(11) \quad \sin(\theta - \pi) =$$

$$(12) \quad \sin(-\theta) =$$

$$(13) \quad \sin\left(\theta + \frac{\pi}{2}\right) =$$

$$(14) \quad \cos(\theta + \pi) =$$

$$(15) \quad \cos(-\theta) =$$

$$(16) \quad \cos\left(\theta - \frac{\pi}{2}\right) =$$

$$(17) \quad \cos(\theta + 2\pi) =$$

$$(18) \quad \sin(\theta + \pi) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan(\theta + 2\pi) =$$

$$(20) \quad \tan(\theta + \pi) =$$

$$(21) \quad \tan(-\theta) =$$

$$(22) \quad \tan\left(\theta - \frac{\pi}{2}\right) =$$

$$(23) \quad \tan(\theta - \pi) =$$

$$(24) \quad \tan(\theta + 2\pi) =$$

5. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \sin(\theta + 2\pi) =$$

$$(2) \quad \sin\left(\theta - \frac{\pi}{2}\right) =$$

$$(3) \quad \cos\left(\theta + \frac{\pi}{2}\right) =$$

$$(4) \quad \cos(-\theta) =$$

$$(5) \quad \sin(-\theta) =$$

$$(6) \quad \cos(\theta + 2\pi) =$$

$$(7) \quad \cos(\theta - \pi) =$$

$$(8) \quad \sin\left(\theta + \frac{\pi}{2}\right) =$$

$$(9) \quad \cos(\theta + \pi) =$$

$$(10) \quad \sin(\theta + \pi) =$$

$$(11) \quad \sin(\theta + 2\pi) =$$

$$(12) \quad \cos\left(\theta + \frac{\pi}{2}\right) =$$

$$(13) \quad \cos\left(\theta - \frac{\pi}{2}\right) =$$

$$(14) \quad \sin(-\theta) =$$

$$(15) \quad \sin\left(\theta - \frac{\pi}{2}\right) =$$

$$(16) \quad \cos(\theta - \pi) =$$

$$(17) \quad \sin(\theta - \pi) =$$

$$(18) \quad \cos(\theta + 2\pi) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan(\theta + \pi) =$$

$$(20) \quad \tan(-\theta) =$$

$$(21) \quad \tan\left(\theta - \frac{\pi}{2}\right) =$$

$$(22) \quad \tan\left(\theta + \frac{\pi}{2}\right) =$$

$$(23) \quad \tan(\theta + 2\pi) =$$

$$(24) \quad \tan(\theta + \pi) =$$

6. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \cos \left(\theta + \frac{\pi}{2} \right) =$$

$$(2) \quad \sin (\theta + 2\pi) =$$

$$(3) \quad \cos (-\theta) =$$

$$(4) \quad \sin (\theta + \pi) =$$

$$(5) \quad \cos (\theta + \pi) =$$

$$(6) \quad \sin \left(\theta - \frac{\pi}{2} \right) =$$

$$(7) \quad \cos \left(\theta + \frac{\pi}{2} \right) =$$

$$(8) \quad \sin (\theta + 2\pi) =$$

$$(9) \quad \cos \left(\theta - \frac{\pi}{2} \right) =$$

$$(10) \quad \sin \left(\theta + \frac{\pi}{2} \right) =$$

$$(11) \quad \cos (\theta + 2\pi) =$$

$$(12) \quad \cos (-\theta) =$$

$$(13) \quad \sin \left(\theta - \frac{\pi}{2} \right) =$$

$$(14) \quad \sin (-\theta) =$$

$$(15) \quad \sin (\theta + 2\pi) =$$

$$(16) \quad \sin \left(\theta + \frac{\pi}{2} \right) =$$

$$(17) \quad \sin (\theta - \pi) =$$

$$(18) \quad \cos (\theta + 2\pi) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan (\theta - \pi) =$$

$$(20) \quad \tan \left(\theta - \frac{\pi}{2} \right) =$$

$$(21) \quad \tan \left(\theta + \frac{\pi}{2} \right) =$$

$$(22) \quad \tan (\theta + 2\pi) =$$

$$(23) \quad \tan (\theta + \pi) =$$

$$(24) \quad \tan (\theta - \pi) =$$

7. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \sin \left(\theta - \frac{\pi}{2} \right) =$$

$$(2) \quad \cos (\theta - \pi) =$$

$$(3) \quad \sin (\theta + 2\pi) =$$

$$(4) \quad \sin (-\theta) =$$

$$(5) \quad \cos \left(\theta - \frac{\pi}{2} \right) =$$

$$(6) \quad \cos \left(\theta + \frac{\pi}{2} \right) =$$

$$(7) \quad \sin \left(\theta - \frac{\pi}{2} \right) =$$

$$(8) \quad \sin (\theta + \pi) =$$

$$(9) \quad \cos (\theta - \pi) =$$

$$(10) \quad \sin (\theta + 2\pi) =$$

$$(11) \quad \cos \left(\theta - \frac{\pi}{2} \right) =$$

$$(12) \quad \cos (\theta + 2\pi) =$$

$$(13) \quad \sin (-\theta) =$$

$$(14) \quad \cos \left(\theta + \frac{\pi}{2} \right) =$$

$$(15) \quad \sin (\theta - \pi) =$$

$$(16) \quad \sin (\theta + 2\pi) =$$

$$(17) \quad \cos (\theta - \pi) =$$

$$(18) \quad \cos \left(\theta - \frac{\pi}{2} \right) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan (-\theta) =$$

$$(20) \quad \tan \left(\theta - \frac{\pi}{2} \right) =$$

$$(21) \quad \tan (\theta + 2\pi) =$$

$$(22) \quad \tan \left(\theta + \frac{\pi}{2} \right) =$$

$$(23) \quad \tan (\theta + \pi) =$$

$$(24) \quad \tan (\theta - \pi) =$$

8. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \sin(\theta + \pi) =$$

$$(2) \quad \sin(-\theta) =$$

$$(3) \quad \sin\left(\theta - \frac{\pi}{2}\right) =$$

$$(4) \quad \cos(-\theta) =$$

$$(5) \quad \sin(\theta - \pi) =$$

$$(6) \quad \cos(\theta + \pi) =$$

$$(7) \quad \cos\left(\theta + \frac{\pi}{2}\right) =$$

$$(8) \quad \sin(\theta + \pi) =$$

$$(9) \quad \cos(\theta + 2\pi) =$$

$$(10) \quad \cos(-\theta) =$$

$$(11) \quad \sin(-\theta) =$$

$$(12) \quad \sin\left(\theta + \frac{\pi}{2}\right) =$$

$$(13) \quad \cos\left(\theta - \frac{\pi}{2}\right) =$$

$$(14) \quad \cos(\theta - \pi) =$$

$$(15) \quad \sin(\theta + 2\pi) =$$

$$(16) \quad \cos(-\theta) =$$

$$(17) \quad \sin\left(\theta - \frac{\pi}{2}\right) =$$

$$(18) \quad \sin(-\theta) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan\left(\theta - \frac{\pi}{2}\right) =$$

$$(20) \quad \tan(\theta + 2\pi) =$$

$$(21) \quad \tan\left(\theta + \frac{\pi}{2}\right) =$$

$$(22) \quad \tan(-\theta) =$$

$$(23) \quad \tan(\theta - \pi) =$$

$$(24) \quad \tan\left(\theta - \frac{\pi}{2}\right) =$$

9. $\sin \theta$ $\cos \theta$ $\tan \theta$ の変化

$\sin \theta, \cos \theta$ で表しましょう。

$$(1) \quad \cos \left(\theta - \frac{\pi}{2} \right) =$$

$$(2) \quad \sin \left(\theta + \frac{\pi}{2} \right) =$$

$$(3) \quad \cos (\theta + 2\pi) =$$

$$(4) \quad \sin (\theta + 2\pi) =$$

$$(5) \quad \cos (-\theta) =$$

$$(6) \quad \sin (\theta + \pi) =$$

$$(7) \quad \cos (\theta + \pi) =$$

$$(8) \quad \cos \left(\theta + \frac{\pi}{2} \right) =$$

$$(9) \quad \cos (\theta + 2\pi) =$$

$$(10) \quad \cos (\theta - \pi) =$$

$$(11) \quad \sin \left(\theta + \frac{\pi}{2} \right) =$$

$$(12) \quad \cos \left(\theta - \frac{\pi}{2} \right) =$$

$$(13) \quad \sin (\theta - \pi) =$$

$$(14) \quad \sin (\theta + 2\pi) =$$

$$(15) \quad \cos \left(\theta + \frac{\pi}{2} \right) =$$

$$(16) \quad \cos (\theta + \pi) =$$

$$(17) \quad \cos (\theta - \pi) =$$

$$(18) \quad \sin (\theta + \pi) =$$

$\tan \theta$ で表しましょう。

$$(19) \quad \tan (\theta + \pi) =$$

$$(20) \quad \tan (\theta + 2\pi) =$$

$$(21) \quad \tan (-\theta) =$$

$$(22) \quad \tan (\theta - \pi) =$$

$$(23) \quad \tan \left(\theta + \frac{\pi}{2} \right) =$$

$$(24) \quad \tan \left(\theta - \frac{\pi}{2} \right) =$$