

$$\textcircled{1} \sin \theta \cos 2\theta + \cos \theta \sin 2\theta$$

$$\sin(\theta + 2\theta)$$

$$\boxed{\sin 3\theta}$$

$$\textcircled{2} \sin \frac{\pi}{6} \cos \frac{\pi}{3} + \cos \frac{\pi}{6} \sin \frac{\pi}{3}$$

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

$$\boxed{1}$$

$$\textcircled{3} \sin 3\theta \cos \theta - \cos 3\theta \sin \theta$$

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

$$\boxed{\sin 2\theta}$$

$$\textcircled{4} \sin 110^\circ \cos 20^\circ - \cos 110^\circ \sin 20^\circ$$

$$\sin(110^\circ - 20^\circ) = \sin 90^\circ$$

$$\boxed{1}$$

$$\textcircled{7} \cos \frac{2\pi}{9} \cos \frac{\pi}{18} + \sin \frac{2\pi}{9} \sin \frac{\pi}{18}$$

$$\cos(\frac{2\pi}{9} - \frac{\pi}{18})$$

$$\cos(\frac{3\pi}{18}) = \cos \frac{\pi}{6}$$

$$\boxed{\sqrt{3}/2}$$

$$\textcircled{10} \sin(t + 2\pi)$$

$$\sin t \cos 2\pi + \cos t \sin 2\pi$$

$$\sin t \cdot 1 + \cos t \cdot 0$$

$$\boxed{\sin t}$$

$$\textcircled{11} \sin(\theta - 3\pi/2)$$

$$\sin \theta \cos 3\pi/2 - \cos \theta \sin 3\pi/2$$

$$\sin \theta \cdot 0 - \cos \theta \cdot 1$$

$$0 - \cos \theta = \boxed{-\cos \theta}$$

$$\textcircled{17} \cos(30^\circ + 45^\circ)$$

$$\cos 45^\circ \cos 30^\circ - \sin 45^\circ \sin 30^\circ$$

$$\frac{\sqrt{2}}{2} \cdot \frac{\sqrt{3}}{2} - \frac{\sqrt{2}}{2} \cdot \frac{1}{2}$$

$$\boxed{\frac{\sqrt{6}}{4} - \frac{\sqrt{2}}{4}}$$

$$\textcircled{13} \cos(\theta + \pi)$$

$$\cos \theta \cos \pi - \sin \theta \sin \pi$$

$$-1 \quad 0$$

$$-\cos \theta - 0$$

$$\boxed{-\cos \theta}$$

$$\sin(\pi/4 + s) - \sin(\pi/4 - s)$$

$$\textcircled{21} (\sin \pi/4 \cos s + \cos \pi/4 \sin s) -$$

$$(\sin \pi/4 \cos s - \cos \pi/4 \sin s)$$

$$(\frac{\sqrt{2}}{2} \cos s + \frac{\sqrt{2}}{2} \sin s) - (\frac{\sqrt{2}}{2} \cos s - \frac{\sqrt{2}}{2} \sin s)$$

$$\boxed{\sqrt{2} \sin s}$$

$$\textcircled{18} \sin(s - t) \sin \pi/12$$

$$\sin(\pi/3 - \pi/4)$$

$$\sin \pi/4 \cos \pi/3 - \cos \pi/4 \sin \pi/3$$

$$\frac{\sqrt{2}}{2} \cdot \frac{1}{2} - \frac{\sqrt{2}}{2} \cdot \frac{\sqrt{3}}{2}$$

$$\boxed{\frac{\sqrt{2}}{4} - \frac{\sqrt{6}}{4}}$$

2