

1. $\frac{-\sqrt{2} - \sqrt{6}}{4}$

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

3. $\frac{2 + \sqrt{3}}{4}$

4. $\frac{\sqrt{2} + \sqrt{6}}{4}$

5. $\frac{\sqrt{6} + \sqrt{2}}{4}$

6. $\frac{2 - \sqrt{3}}{4}$

7. $\frac{-17}{6}$

8. $\frac{84}{85}$

9. $\frac{1}{8}$

10. $\frac{-33}{65}$

11. $\sin \frac{3\pi}{2} \cos \theta - \cos \frac{3\pi}{2} \sin \theta = -\cos \theta$

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

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

11.

12. $\cos \frac{\pi}{2} \cos \theta + \sin \frac{\pi}{2} \sin \theta = \sin \theta$

$$0 \cdot \cos \theta + 1 \cdot \sin \theta = \sin \theta$$

$$\boxed{\sin \theta = \sin \theta}$$

12.

$$\frac{\tan \pi - \tan \theta}{1 + \tan \pi \cdot \tan \theta} = -\tan \theta$$

$$\frac{0 - \tan \theta}{1 + 0 \cdot \tan \theta} = -\tan \theta$$

$$\frac{-\tan \theta}{1} = -\tan \theta$$

$$\boxed{-\tan \theta = -\tan \theta}$$

13.

$$\sin \frac{\pi}{2} \cos \theta + \cos \frac{\pi}{2} \sin \theta = \cos \theta$$

$$1 \cdot \cos \theta + 0 \cdot \sin \theta = \cos \theta$$

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

14.