

$$2x^2 + x = 0$$

$$x^2 - x = 2$$

$$x^2 - x - 2 = 0$$

$$(x-2)(x+1) = 0$$

$$\csc \theta = 2$$

$$\sin \theta = \frac{1}{2}$$

$$G) 2\cos^2 \theta + \cos \theta = 0$$

$$\cos \theta (2\cos \theta + 1) = 0$$

$$\cos \theta = 0 \begin{cases} 2\cos \theta + 1 = 0 \\ 2\cos \theta = -1 \end{cases}$$

$$90^\circ, 270^\circ \quad \cos \theta = -\frac{1}{2}$$

$$\frac{\pi}{2}, \frac{3\pi}{2} \quad 120^\circ, 240^\circ$$

$$\frac{2\pi}{3}, \frac{4\pi}{3}$$

$$I) \csc^2 \theta - \csc \theta = 2$$

$$\csc^2 \theta - \csc \theta - 2 = 0$$

$$(\csc \theta - 2)(\csc \theta + 1) = 0$$

$$\csc \theta - 2 = 0 \quad \csc \theta + 1 = 0$$

$$\csc \theta = 2 \quad \csc \theta = -1$$

$$30^\circ, 150^\circ \quad 270^\circ$$

$$\frac{\pi}{6}, \frac{5\pi}{6} \quad \frac{3\pi}{2}$$

$$H) 2\sin \theta \cos \theta = \cos \theta$$

$$2\sin \theta \cos \theta - \cos \theta = 0$$

$$\cos \theta (2\sin \theta - 1) = 0$$

$$\cos \theta = 0 \quad \left| \begin{array}{l} 2\sin \theta - 1 = 0 \\ \sin \theta = \frac{1}{2} \end{array} \right.$$

$$90^\circ, 270^\circ \quad 30^\circ \quad 150^\circ$$

$$\frac{\pi}{2}, \frac{3\pi}{2} \quad \frac{\pi}{6}, \frac{5\pi}{6}$$

$$J) \sin^3 \theta = \sin \theta$$

$$\sin^3 \theta - \sin \theta = 0$$

$$\sin \theta (\sin^2 \theta - 1) = 0$$

$$\sin \theta = 0 \quad \sin^2 \theta - 1 = 0$$

$$(\sin \theta - 1)(\sin \theta + 1)$$

$$\sin \theta = 0$$

$$\sin \theta = 1 \quad \sin \theta = -1$$

$$0, 180^\circ$$

$$90^\circ \quad 270^\circ$$

$$0, \pi$$

$$\frac{\pi}{2}, \frac{3\pi}{2}$$