

Solve:

1) $\csc^2(\theta) - \csc(\theta) - 2 = 0, 0 \leq \theta < 2\pi.$

2)

$$2\cos(\theta) = \sqrt{3},$$
$$0 \leq \theta < \pi$$

3) $1 - \cos^2(\theta) = \sin(\theta), \theta$ is in $[0, 2\pi).$

4) $4\sin^2(\theta) - 1 = 0, 0 \leq \theta < 2\pi$

5) $\cos^3(\theta) = \cos(\theta)$

6) $\tan^3(\theta) = \tan(\theta)$

7) $\sin(\theta) = -1 - \sin(\theta)$

8)

$$2\cos(\theta) = \sqrt{2}$$