This is a test pdf.

4.
$$1 + \sin \theta = 2\cos^2 \theta$$
 5. $2\cos^2 \theta + \cos \theta = 0$ 6. $\sin 3\theta = -1$

$$5. 2\cos^2\theta + \cos\theta = 0$$

7.
$$\sin^2 \theta - 1 = 0$$

8.
$$\cos 2\theta = \frac{1}{2}$$

9.
$$2\sin^2\theta - \sin\theta - 1 = 0$$

10.
$$\tan 4\theta = -1$$

11.
$$\tan^2 3x = 3$$

12.
$$\cos \frac{x}{2} = \frac{\sqrt{2}}{2}$$