Solving "Quadratic" Trigonometric Equations

Solve each of the following equations for the interval provided:

Note: The homework assigned for today is in the Text page pg 436 # 5-10. For our note today we will do part (d) of each of the questions.

Example 1

$\cos\theta(2\sin\theta - \sqrt{3}) = 0$, $0 \le \theta \le 2\pi$

Example 2

$(2\cos\theta - 1)(2\sin\theta + \sqrt{3}) = 0$, $0 \le \theta \le 2\pi$

Example 3

$2\sin^2\theta + 5\sin\theta - 3 = 0$, $0 \le \theta \le 2\pi$

Example 4

$2\cot\theta + \csc^2\theta = 0$, $0 \le \theta \le 2\pi$

Example 5

$-2\cos 2\theta = 2\sin\theta$, $0 \le \theta \le 2\pi$

Example 6

$\cos^2\theta - \sin^2\theta - \cos\theta = 0$, $-\pi \le \theta \le \pi$

Example 7

$6\cos^2\theta - \sin\theta - 4 = 0$, $0 \le \theta \le 2\pi$