

## 10F Trigonometric Quadratics

1. Solve the equation

$$\sin^2\theta - 3\sin\theta + 2 = 0 \text{ in the interval } 0 \leq \theta \leq 360$$

2. Solve the equation

$$2\cos^2\theta - \cos\theta - 1 = 0 \text{ in the interval } 0 \leq \theta \leq 360$$

3. Solve the equation

$$\sin^2(\theta - 30) = \frac{1}{2} \text{ in the interval } 0 \leq \theta \leq 360$$

4. Solve the equation

$$2\cos^2 x + 9\sin x = 3\sin^2 x \text{ in the interval } -180 \leq \theta \leq 180$$