Name _____ Date _____
Mr. Schlansky Algebra II

Second Degree Trig Equations

1. In the interval $0^o \le \vartheta < 360^o$, find to the nearest degree all values of ϑ that satisfy the equation $\tan^2 \vartheta - 5\tan\vartheta + 6 = 0$

2. Find all values of θ in the interval $0° \le \theta \le 360°$ that satisfy the equation $\sin^2 \vartheta - 1 = 0$

3. In the interval $0^o \le \vartheta < 360^o$, find to the nearest degree all values of ϑ that satisfy the equation $\sec^2 \theta - 5\sec\theta = -6$.

4. Find, to the *nearest degree*, all values of θ in the interval $0° \le \theta \le 360°$ that satisfy the equation $8\cos^2\theta - 2\cos\theta - 1 = 0$.

5. Which values of x in the interval $0° \le x < 360°$ satisfy the equation $2\sin^2 x + \sin x - 1 = 0$?

6. In the interval $0^o \le \vartheta < 360^o$, find to the nearest degree all values of ϑ that satisfy the equation $\sin\theta = 3\csc\theta + 2$.