

Show all necessary steps in each problem. Full credit is based on work shown!

1. Solve each equation on the interval $0 \leq \theta < 2\pi$.

4pts

a. $\cos \theta = -\frac{\sqrt{3}}{2}$

8pts

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

8pts

b. Use a calculator to solve: $\tan \theta = 3$
(Round answers to 3 decimal places.)

Show a sketch of the graph of $y = \tan \theta$, with the solutions to $\tan \theta = 3$ marked on the graph. Remember to show solutions in the interval $0 \leq \theta < 2\pi$.

