9. Solve for $\theta$. $\sin^2 \theta + 2 \cos^2 \theta = 0$
Divide by everything by $\cos^2 \theta$.
Rewrite in terms of $\tan \theta$.

Solve for $\theta$. (Write “no solutions” if there are none.) ___/1

10. Solve for $x$. $\sin^2 x + \cos x = 1$. Should be three sets of solutions.
Rewrite in terms of just $\sin$ or just $\cos$, not both.
Since $\sin^2 x + \cos^2 x = 1$, you can solve for $\sin^2$ in terms of $\cos^2$ or $\cos^2$ in terms of $\sin^2$ getting
- $\sin^2 x = 1 - \cos^2 x$
- $\cos^2 x = 1 - \sin^2 x$.
Use one of these equations to rewrite the given equation above entirely in terms of $\sin$ or entirely in terms of $\cos$. ___/1

Now solve for $x$. ___/3