

Follow the directions.

Problem	Solution
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Determine Real Solutions. $0 \leq x < 2\pi$

1. $\sin^2(x) = 3\cos^2(x)$	
2. $2\sin^2(x) + \cos^2(x) = \frac{3}{2}$	
3. $\sin^2(x) - \cos(x) = \frac{1}{4}$	
4. $\tan^2(x) - \sec(x) = 1$	
5. $\tan(x) + \cot(x) = 2$	
6. $\sin(x) + \cos(x) = 1$	
7. $\sin(x)\sec(2x) = 1$	
8. $\sin(4x) - \sin(2x) = \sin(x)$	
9. $\sin(2x) = \cos(3x)$	
10. $2\cos(x) + \sin(2x) = 0$	
11. $\sin(2x) = \cos(x)$	
12. $\tan^2(x) = \tan(x)$	