§2.3 (part 1): Solving Trigonometric Equations

1.] Suppose x is any angle inside $[0, 2\pi)$. Solve the following equation for x: $\sin(x) + \sqrt{2} = -\sin(x)$

2.] Suppose x is any angle inside $[0, 2\pi)$. Solve the following equation for x: $\cot(x)\cos^2(x) = 2\cot(x)$

3.] Suppose x is any angle. Solve the following equation for x. $\sin^2(x) = 2\sin(x)$

4.] Find the general solution to the equation: $3\sec^2(x) - 4 = 0$

5.] Find all solutions in the interval $[0, 2\pi)$: $\sin^2(x) = 3\cos^2(x)$

6.] Find all solutions in the interval $[0, 2\pi)$: $\tan^2(x) = \sec(x) - 1$