1. Graph the function $f(x) = 2\cos(2x) - 5\sin(2x)$ on your calculator and estimate the values of A and δ that espress f as a sinusoid $f(x) = A\sin(2(x - \delta))$. *(5 points)*

2. Show that the following equations are identities: *(10 points)*

   (a) $2\cot x \csc x = \dfrac{1}{\sec x - 1} + \dfrac{1}{\sec x + 1}$

   (b) $\sin(x + \frac{\pi}{2}) = -\cos x$

3. Find all values of $x \in [0, 2\pi)$ that solve the equation $2\sin^2 x - 3\sin x + 1 = 0$. Show your work. *(5 points)*