1. Find the amplitude, the period, and the phase shift and sketch the graph of the equation.
   \[ y = 2 \sin \left( \frac{1}{2} x - \pi \right) \].

2. (6.5.23) in the textbook.

3. Solve \( \triangle ABC \), given \( \gamma = 90^\circ \), \( \alpha = 25^\circ \) and \( b = 1 \).

4. Solve \( \triangle ABC \), given \( \gamma = 90^\circ \), \( a = 1.2 \) and \( b = 3.2 \).

5. A ship leaves port at 1:00 P.M. and sails in the direction \( N24^\circ W \) at a rate of 10 mi/hr. Another ship leaves port at 1:30 P.M. and sails in the direction \( N66^\circ E \) at a rate of 20 mi/hr. What is the bearing, to the nearest degree, from the first ship to the second?

6. Verify the identity: \[ \frac{1 + \csc x}{\sec x} - \cot x = \cos x \].

7. Make the trigonometric substitution \( x = a \sin \theta \) for \(-\pi/2 < \theta < \pi/2\) and \( a > 0 \). Simplify the resulting expression. \[ \frac{1}{x \sqrt{a^2 - x^2}} \].

8. Find the solutions of the equation \( \cos \theta = -\frac{\sqrt{3}}{2} \).

9. Find all solutions of the equation \( \cos \left( 2x - \frac{\pi}{3} \right) = \frac{1}{2} \).

10. Find the solutions of the equation that are in the interval \([0, 2\pi)\). \( 1 - \sin t = \sqrt{3} \cos t \).