Name: ———————————————————— Date: ———————————

Instructions: Please complete the following problems for practice.

Problem 1. Using the unit circle, find all the solutions of $\tan x = -1$ in the interval $[0, 2\pi)$

Problem 2. Find the two general solution equations for $\sin x = -\frac{1}{2}$

Problem 3. Find all the solutions in the interval $[0, 2\pi)$ of: $\sin(2x) = -\frac{\sqrt{3}}{2}$

Problem 4. Find the general solutions AND all the solutions on the interval $[0, 2\pi)$: $(\cos x + 1)(\tan x + 1) = 0$. (Hint: Show full algebraic process.)

Problem 5. Find all the solutions in the interval $[0, 2\pi)$ of: $(2\cos x + 1)(\sqrt{3}\tan x - 1) = 0$

Problem 6. Find all the solutions in the interval $[0, 6\pi)$ of: $\sin(\frac{x}{2}) = \frac{\sqrt{2}}{2}$