Secondary 3 Honors: Unit 8: Trigonometry Name: _____ Period: _____

8-6 HW: Graphing Tangent and Co-Functions

Using radians, find the amplitude, period, domain, and range of each function. Then graph by hand.

1. $y = \frac{1}{2}\tan x$ **2.** $y = 3\tan\frac{1}{2}x$ **3.** $y = \frac{1}{2}\tan 2x$

4. $y = \sec x$ **5.** $y = \cot x$ **6.** $y = \csc x$

Using what you know about transformations, graph the following functions. Don't forget to state the amplitude, period, domain, and range.

7. $y = 3\csc x$ **8.** $y = \sec 2x$

Review!

Graph the following functions by hand. State the amplitude, period, domain, and range.

9. $y = \cos 2x - 1$ **10.** $y = 2\sin\left(x - \frac{\pi}{2}\right) - 2$

Given the following arithmetic sequences, find the common difference, the 52nd term, and the explicit formula.

11. $-31, -35, -39, -43, \ldots$ **12.** $20, 29, 38, 47, \ldots$

Given the following geometric sequences, find the common ratio, the 8th term, and the explicit formula.

13. $2, 4, 8, 16, \ldots$ **14.** $-1, 4, -16, 64, \ldots$