

2.12 Quiz Review: Graphing Sec, Csc, Tan and Cot with Transformations

State the period, phase shift, and vertical shift of each function below. Then, graph at least one period of the function. Label the axes.

1. $y = \cot\left(3\theta - \frac{5\pi}{2}\right) + 1$

Vertical Stretch: _____ Period: _____ Increments: _____ Phase Shift: _____ Vertical Shift: _____

Asymptotes: _____

2. $y = -2\sec\left(\frac{\pi\theta}{2} + \frac{\pi}{3}\right) + 1$

Vertical Stretch: _____ Period: _____ Increments: _____ Phase Shift: _____ Vertical Shift: _____

Asymptotes: _____

3. $y = 3\tan\left(\frac{\theta}{2} - \frac{4\pi}{3}\right) - 1$

Vertical Stretch: _____ Period: _____ Increments: _____ Phase Shift: _____ Vertical Shift: _____

Asymptotes: _____

4. Write the equation of a cotangent function with a period $= \frac{\pi}{6}$ that is shifted up 3 units and left 9π units.