Pre-Calculus

Name:　　　　　　　　　　Date:　　　　Period:

Assignment 8B.2: Cosecant and Secant Graphs

Describe how the graph the following curves differs from $y = \csc x$ and $y = \sec x$ and state the values of the asymptotes.
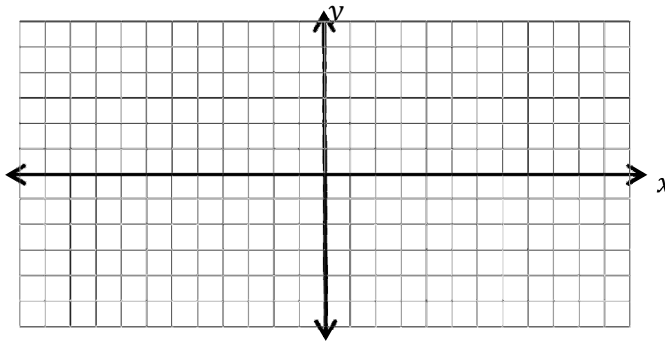
1. $y = 5\csc(x)$
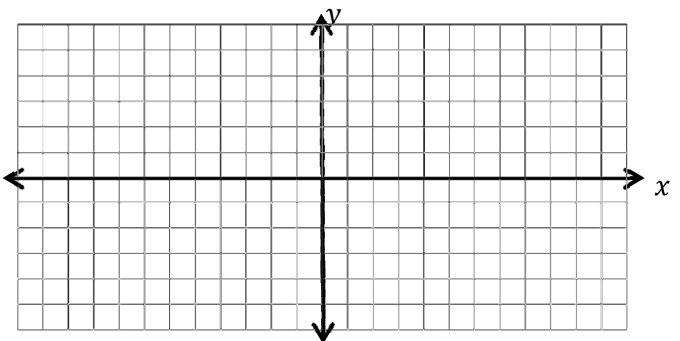
2. $y = -\sec\left(\frac{x}{4}\right) + 3$

3. $y = \csc\left(2\left(x - \frac{\pi}{4}\right)\right) + 2$

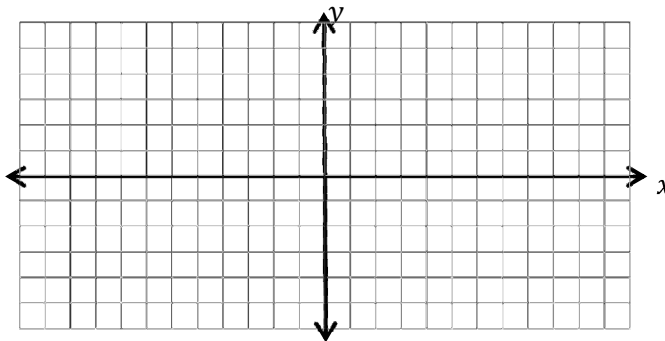Graph the following functions by first graphing their corresponding reciprocal function.
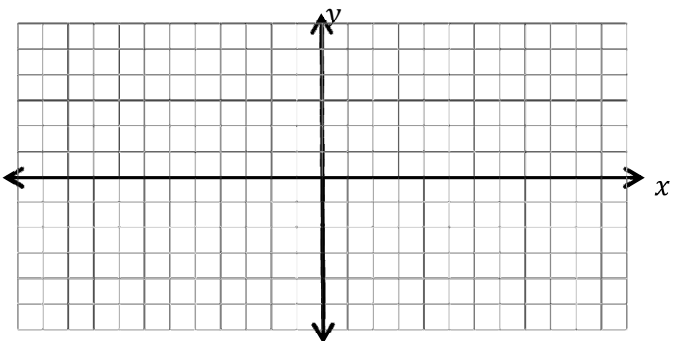
4.　　　$y = 2\csc x$

5.　　　$y = \frac{1}{2}\csc\left(x + \frac{\pi}{4}\right)$

6.　　　$y = \sec(2x)$

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

8. The "U" shapes in a secant or cosecant graph appear to be parabolas. Explain why the repeating shapes in the secant and cosecant graphs are *not* parabolas.