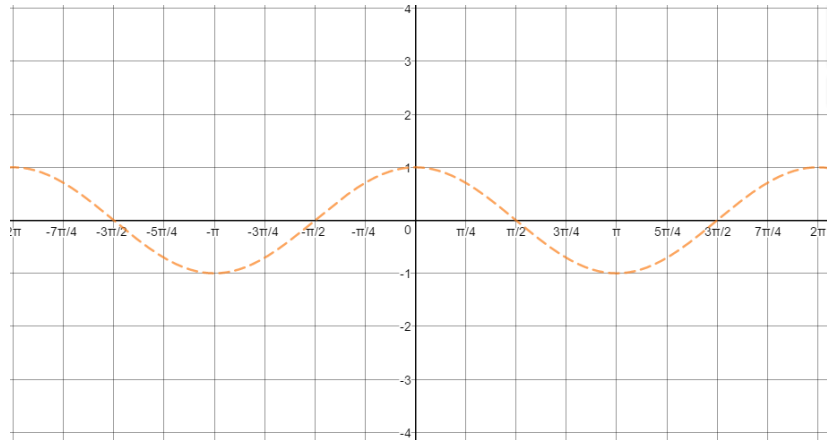


4.5 Graphs of Tangent, Cotangent, Secant, Cosecant

Target 5C: Rigid and non-rigid transformations of sinusoids

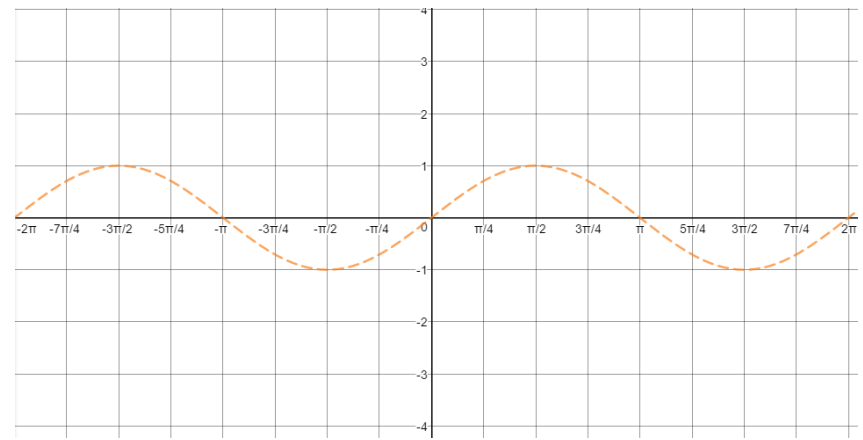
$y = \sec x$



Period: _____

Asymptotes: _____

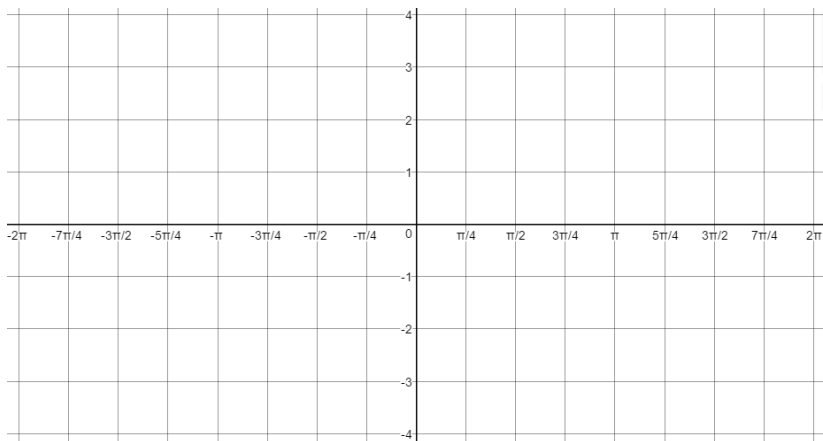
$y = \csc x$



Period: _____

Asymptotes: _____

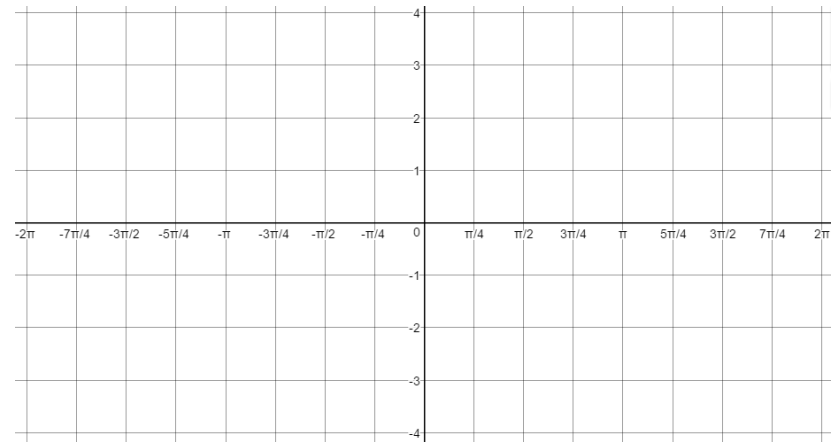
$y = \tan x$



Period: _____

Asymptotes: _____

$y = \cot x$

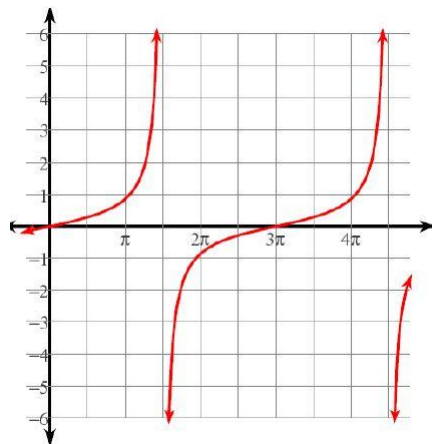


Period: _____

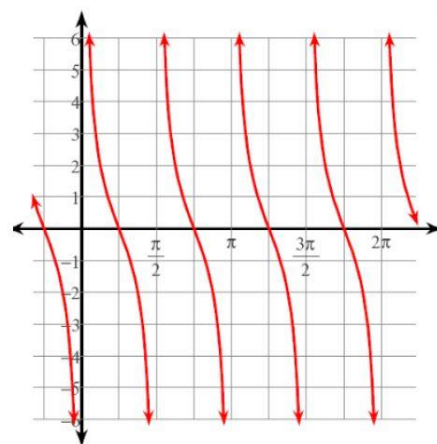
Asymptotes: _____

Write an equation for each graph and identify the vertical asymptotes.

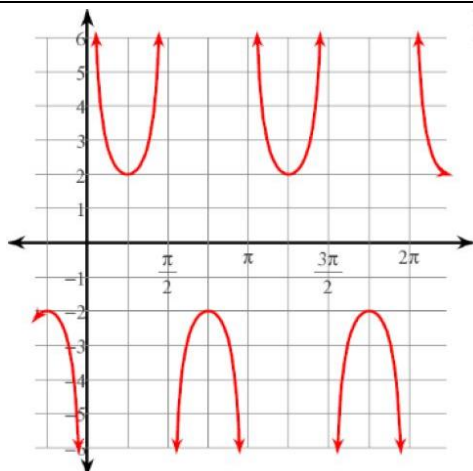
1. Tangent



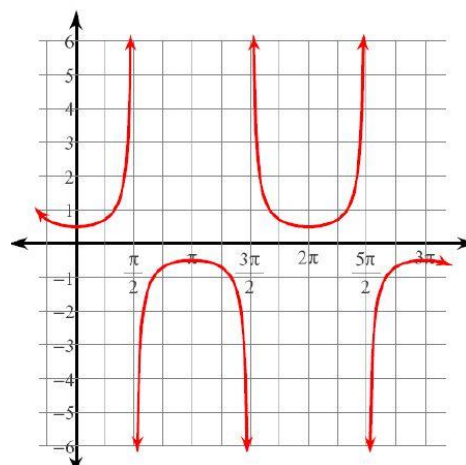
2. Cotangent



3. Secant



4. Cosecant



Describe the transformation for the given function.

5. $y = \tan(5x) + 2$

6. $y = \cot\left(\frac{x}{3} - \pi\right)$

7. $y = -2 \sec(3x)$

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

More Practice

Graphs of Secant, Cosecant, Tangent, and Cotangent

<http://www.regentsprep.org/regents/math/algtrig/att7/othergraphs.htm>

<http://www.intmath.com/trigonometric-graphs/4-graphs-tangent-cotangent-secant-cosecant.php>

<http://www.purplemath.com/modules/triggrph3.htm>

https://www.youtube.com/watch?v=2m_qvTv1RgU

https://www.youtube.com/watch?v=srWI_jFm91w

https://www.youtube.com/watch?v=4Fnu3_mXaik

Homework Assignment

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