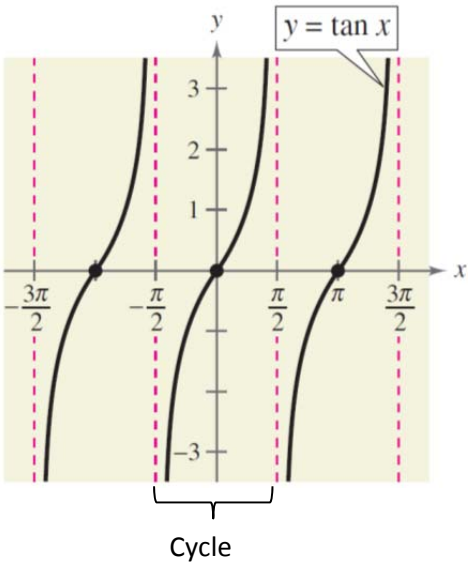
Pg. 332 4.6A – Graphs of Other Trigonometric Functions

Parent function tangent: tan x

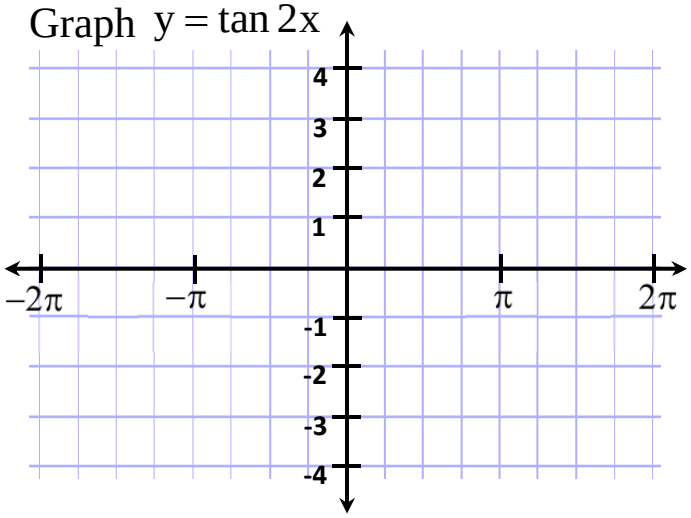


7 Key Graphing Rules

1) Intercepts (1 per cycle)
2) Vertical Asymptotes (2 per cycle)
3) Normal period or cycle is π.
4) Divided into 2 parts
5) Starting point is the origin.
   Move one part to the left and one to the right to obtain asymptotes.
6) Between every cycle is an asymptote.
7) The graph moves right and up
   OR left and down.

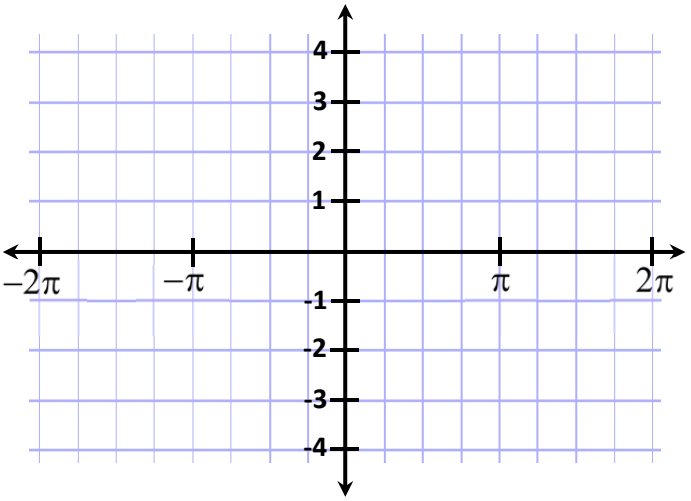
Ex 1:

Graph $y = \tan 2x$

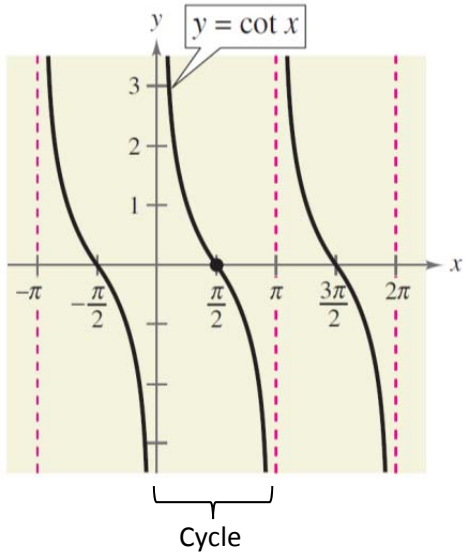


Ex 2:

Graph $y = \tan\left(x - \frac{\pi}{2}\right)$



Parent function cotangent: cot x

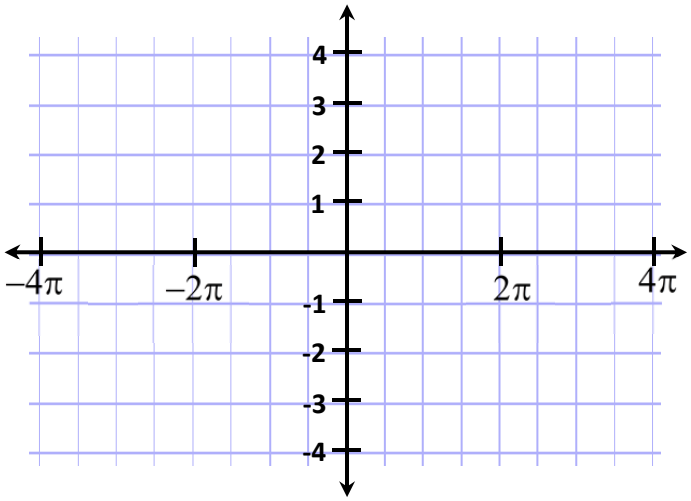


7 Key Graphing Rules

1) Intercepts (1 per cycle)
2) Vertical Asymptotes (2 per cycle)
3) Normal period or cycle is π.
4) Divided into 2 parts
5) Starting asymptote is $x = 0$.
   Move one part to the right and then another part to the right to obtain next asymptote.
6) Between every cycle is an asymptote.
7) The graph moves left and up
   OR right and down.

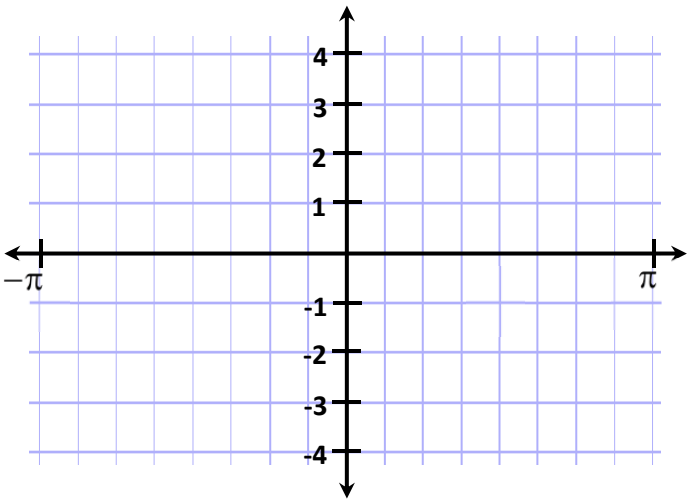
Ex 3:

Graph $y = \cot\left(\frac{x}{4}\right)$



Ex 4:

Graph $y = -2\cot\left(2x + \frac{\pi}{4}\right)$



Assignment 4.6A

Pg. 339 **REQUIRED:** Vocab #'s 1,4 Problem Set #'s 2,3,7,9,19,23,31,35,36,39