Basic tan graphs

$y = a \tan bx$

No amplitude/min/max

Identify the period: $\frac{\pi}{|b|}$

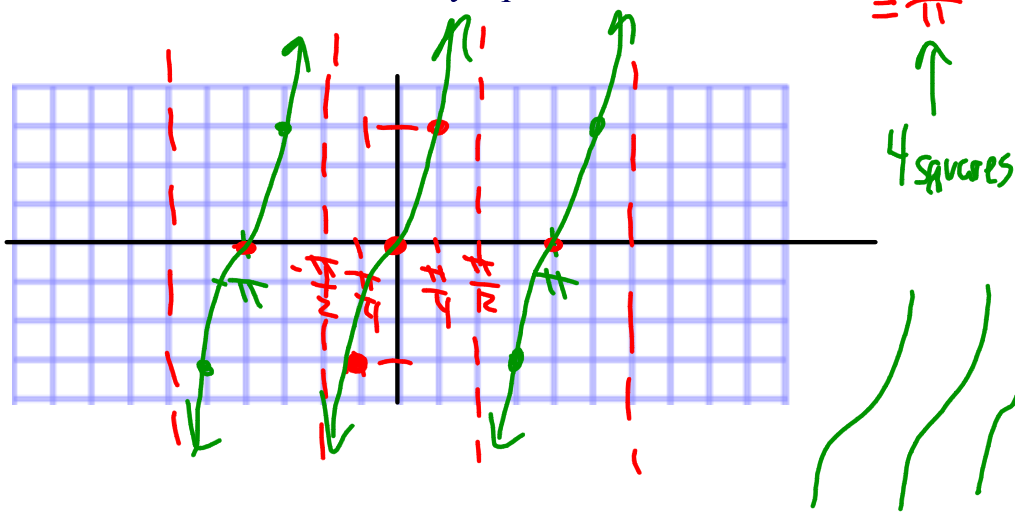
Vertical Asymptotes: odd multiples of $\frac{\pi}{2|b|}$ where tangent is undefined

Example 1:

$y = \tan x$ key points: x-intercepts, asymptotes

period $= \frac{\pi}{b} = \frac{\pi}{1} = \pi$

4 squares



Example 2:

$y = \tan 2x$

$= \tan \frac{2\pi}{8}$

$= \tan \frac{\pi}{4} = 1$

key points: x-intercepts, asymptotes

Period: $\frac{\pi}{2}$

4 squares