

4.6 Graphs of Other Trig Functions "Day 1"

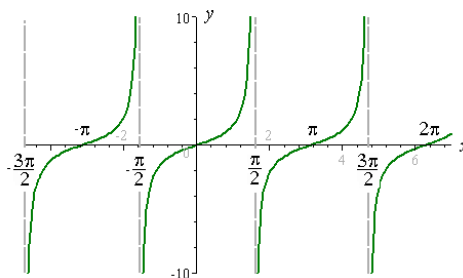
I. Graph $y = \tan x = \frac{\sin x}{\cos x}$

Period: π

Domain: $x \neq \frac{\pi}{2} \pm n\pi$

Range: $(-\infty, \infty)$

VA: $x = \frac{\pi}{2} \pm n\pi$



II. Graph $y = \cot x = \frac{\cos x}{\sin x}$

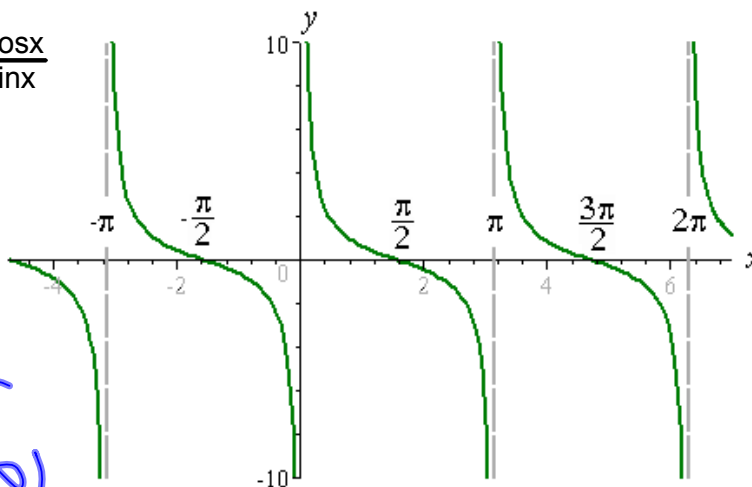
Period: π

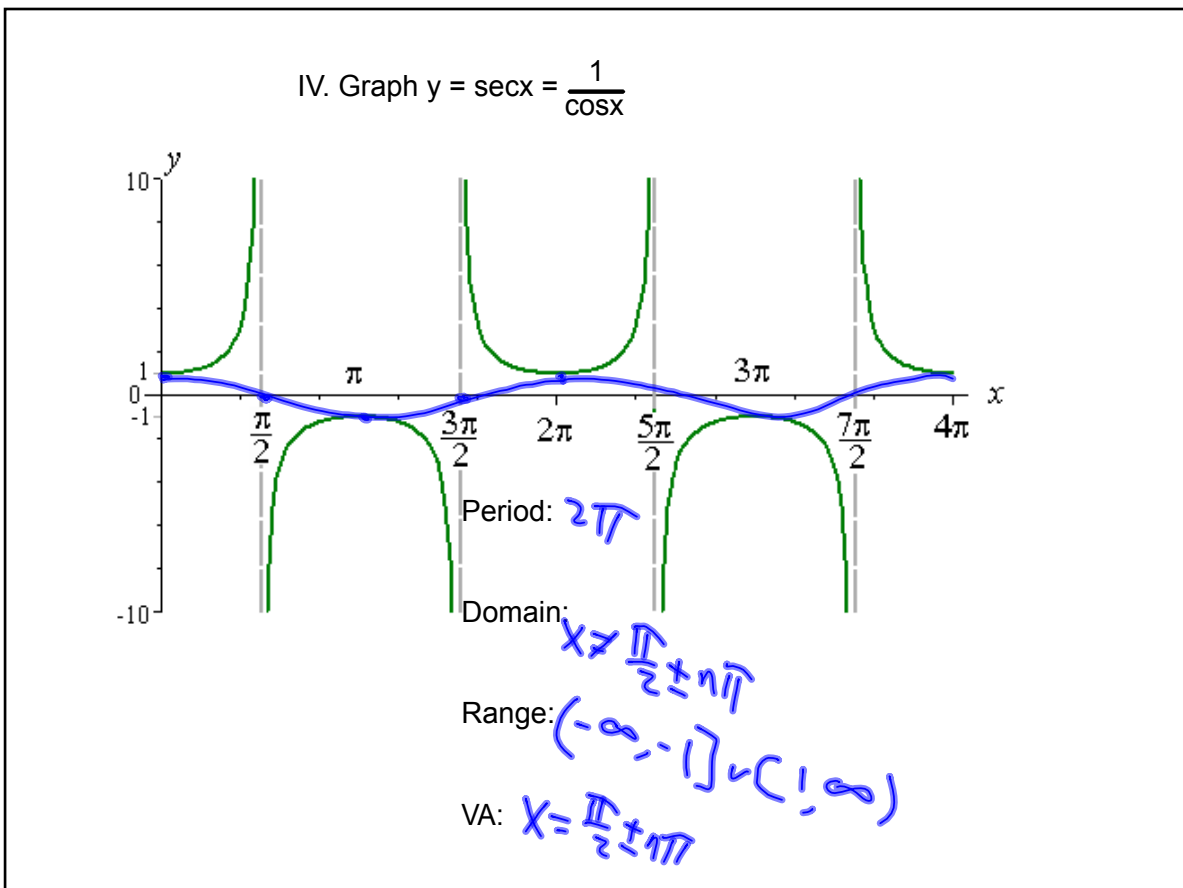
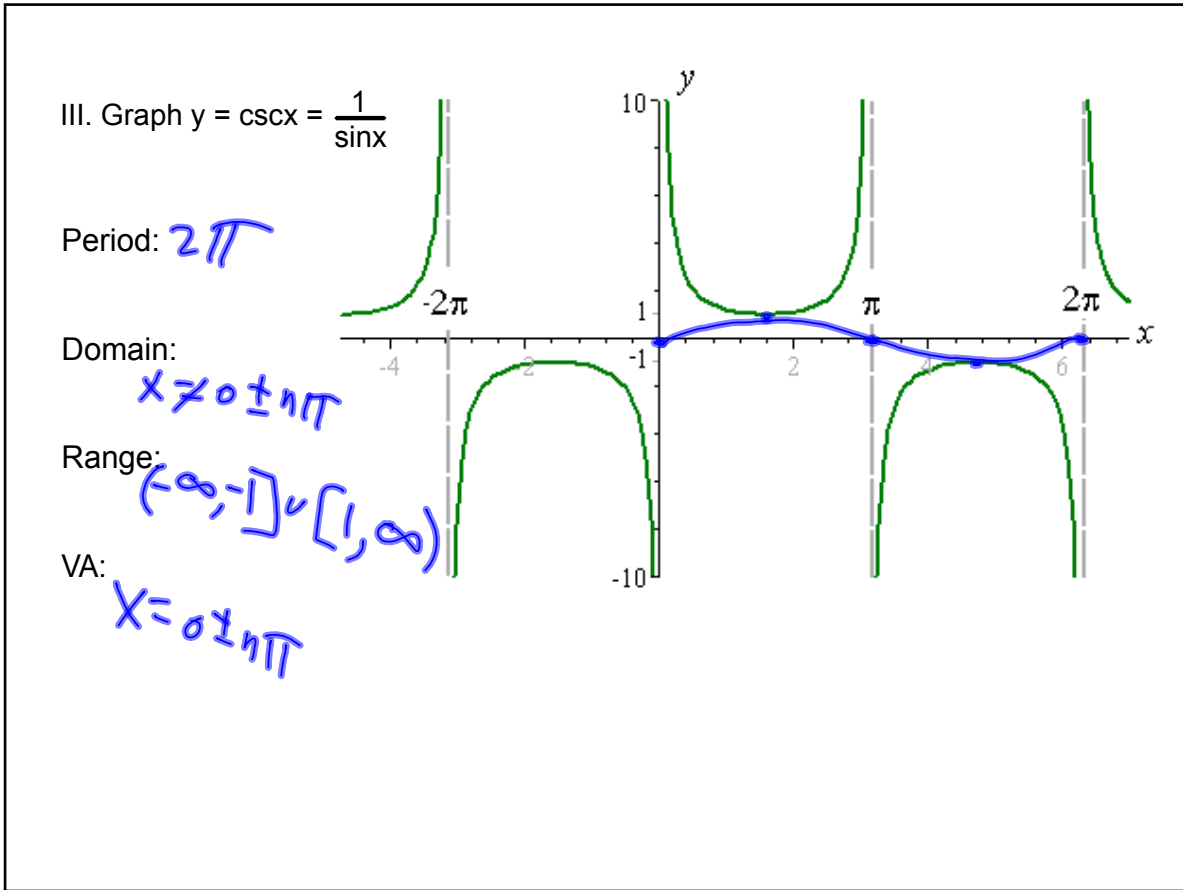
Domain:

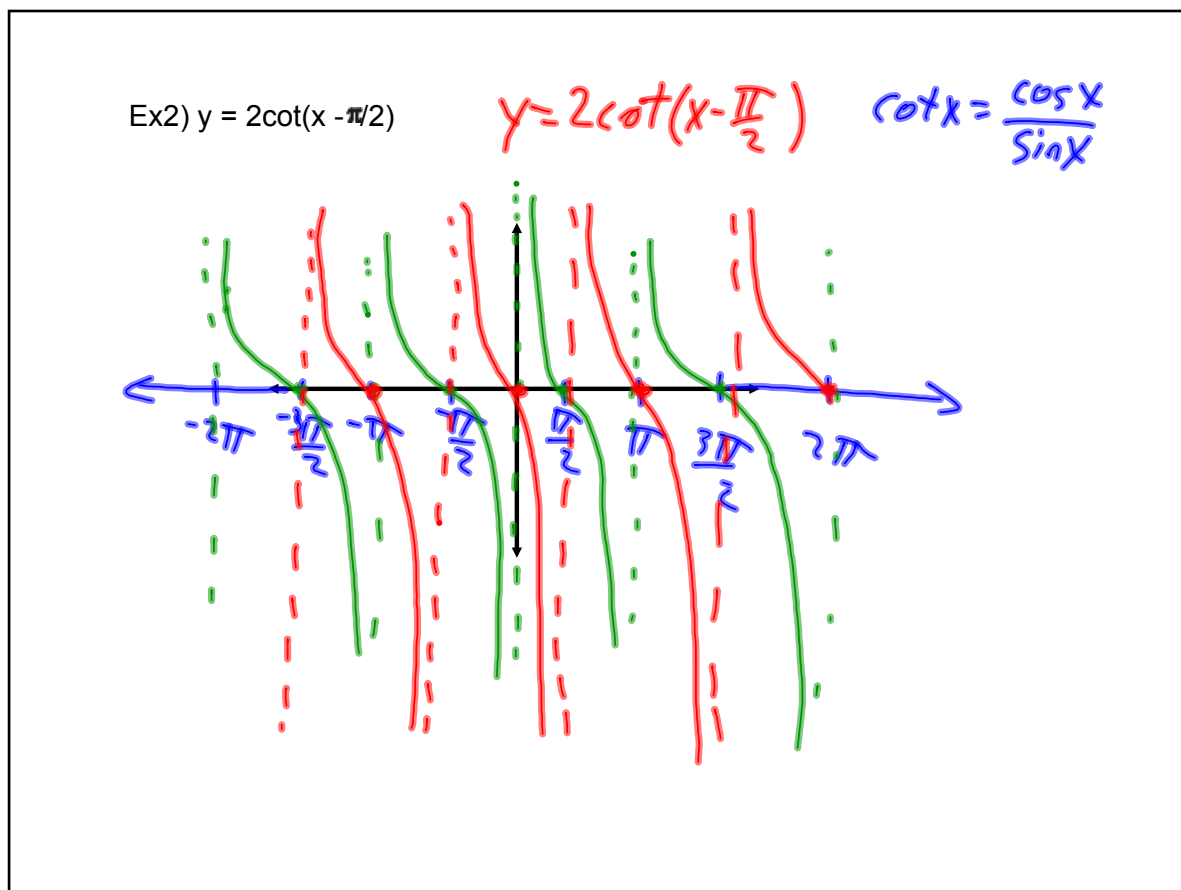
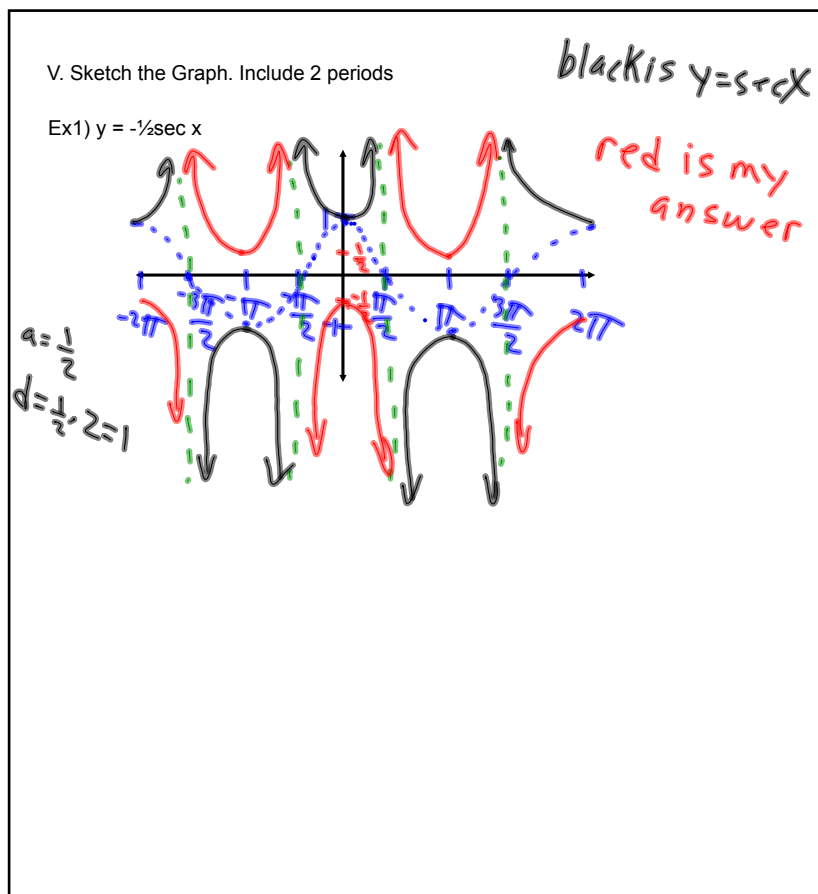
$x \neq 0 \pm n\pi$

Range: $(-\infty, \infty)$

VA: $x = 0 \pm n\pi$







VI. Use a graph to Solve the equation on the interval. $[-2\pi, 2\pi]$

$$\text{Ex3) } \cot x = -\sqrt{3} = -\frac{\sqrt{3}}{1} = -\frac{\sqrt{3}}{2} \cdot \frac{2}{2}$$

↓

$$\frac{\cos x}{\sin x} = \frac{1}{2}$$
$$\frac{5\pi}{6}, \frac{11\pi}{6}, -\frac{\pi}{6}, -\frac{7\pi}{6}$$