

5.5 - p. 424 #s 11 + 15

11.) For what numbers x , $-2\pi \leq x \leq 2\pi$, does $\sec x = 1$? $\sec x = -1$

- Since $\sec x = \frac{1}{\cos x}$, $\cos x$ must equal 1 for $\sec x$ to equal 1.

Those values of x occur at $x = -2\pi, 0, 2\pi$

- For $\sec x = -1$, we need to figure out what values of x make $\cos x = -1$, since $\sec x = \frac{1}{\cos x} \rightarrow$ Those values occur at $x = -\pi, \pi$

15.) For what numbers x , $-2\pi \leq x \leq 2\pi$, does the graph of $y = \tan x$ have vertical asymptotes?

$\tan x = \frac{\sin x}{\cos x}$, so the x -values that make $\cos x = 0$ will be your solution.

Vertical asymptotes are where the function is

This occurs at $x = \frac{-3\pi}{2}, \frac{-\pi}{2}, \frac{\pi}{2}, \frac{3\pi}{2}$

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