Answer on Question #42497– Math – Calculus

Question:

Analyze the function $f(x) = -\tan 4x$. Include:
- Domain and range
- Period
- Two Vertical Asymptotes

Solution:

-Domain:

$$\{x \in R : \pi \frac{2n+1}{8} < x < \pi \frac{2n+3}{8} \; and \; n \in Z\}$$

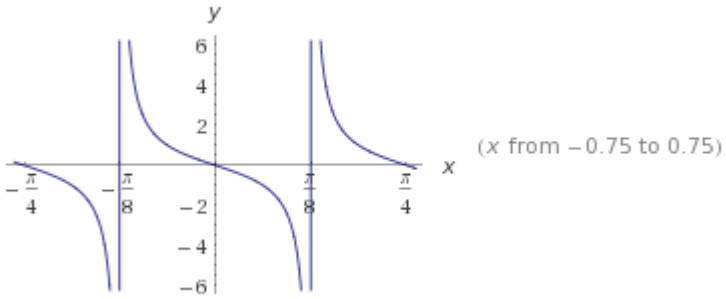
-Range: $\mathbb{R}$ $(all\ real\ numbers)$

- Period:

periodic in x with period $\frac{\pi}{4}$.

- Two Vertical Asymptotes:

for example $x = \frac{\pi}{8}$ and $x = -\frac{\pi}{8}$.



Graph: