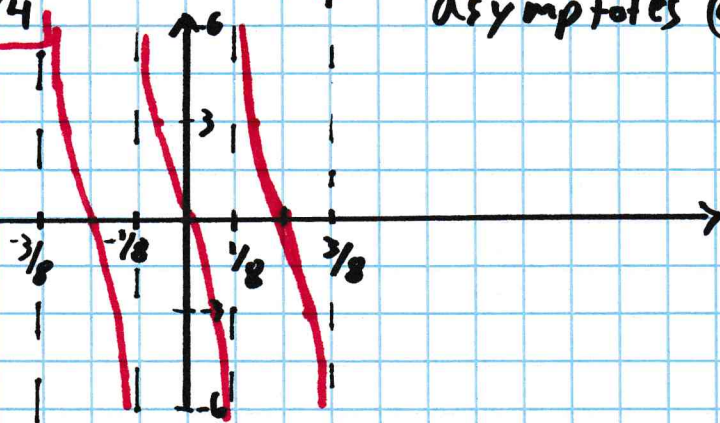


22. $y = -3 \tan(4\pi x)$



Period: $\frac{1}{4}$

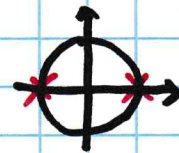


asymptotes @ $\theta = \frac{\pi}{2}; 4\pi x = \frac{\pi}{2}$
 $x = \frac{1}{8} \quad x = \frac{\pi}{2} \cdot \frac{1}{4\pi}$

$\theta = \frac{3\pi}{2}; 4\pi x = \frac{3\pi}{2}$
 $x = \frac{3}{8} \quad x = \frac{3\pi}{2} \cdot \frac{1}{4\pi}$

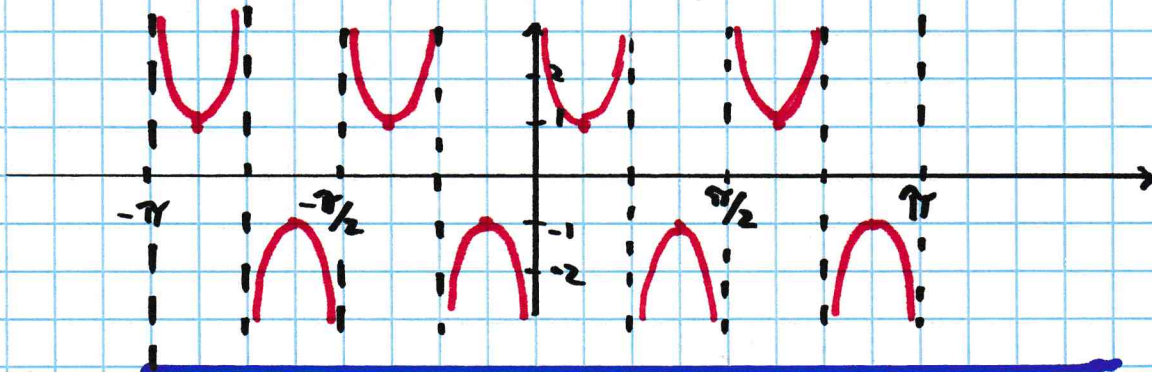
$y(\frac{1}{4}) = -3 \tan \pi = 0$
 $y(\frac{3}{16}) = -3 \cdot \tan(4\pi \cdot \frac{3}{16})$
 $= -3 \tan(\frac{3\pi}{4}) = 3$

29. $y = \csc(4x); \text{ Let } \theta = 4x \quad y = \frac{1}{\sin \theta}$



asymptotes @ $\theta = 0, 4x = 0, x = 0$
 $\theta = \pi, 4x = \pi, x = \frac{\pi}{4}$
 $\theta = 2\pi, 4x = 2\pi, x = \frac{\pi}{2}$

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



$y(\frac{\pi}{8}) = \csc(4 \cdot \frac{\pi}{8})$
 $= \csc(\frac{\pi}{2}) = 1$

34. $y = 5 \cdot \sec(2\pi x); \text{ let } \theta = 2\pi x \quad y = 5 \cdot \frac{1}{\cos \theta}$



asymptotes @ $2\pi x = \frac{\pi}{2}; x = \frac{\pi}{2} \cdot \frac{1}{2\pi} = \frac{1}{4}$
 $2\pi x = \frac{3\pi}{2}; x = \frac{3\pi}{2} \cdot \frac{1}{2\pi} = \frac{3}{4}$

$y(0) = 5 \cdot \frac{1}{\cos 0} = 5$

Period: 1

