Name: _____   Date: _____

Learning Goal 5.1	Graphing primary trigonometric functions, including transformations and characteristics

More Questions - Solutions

1. Graph the function
    $$y = \frac{1}{4}\tan 2x$$
    for $0 \leq x \leq 2\pi$.

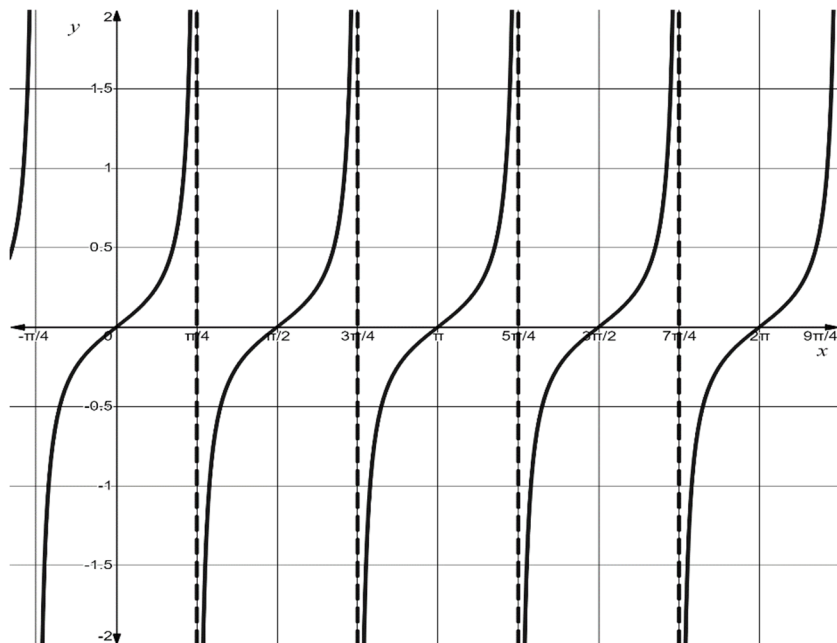   a. What is the period of the function?
        $$\frac{\pi}{2}$$

    b. State the domain and range of the function.
        $$\{x|x \neq \frac{(2n+1)\pi}{4}, n \in \mathbb{Z}, x \in \mathbb{R}\}$$
        $$\{y| y \in \mathbb{R}\}$$

    c. State the equations of the asymptotes in this domain.
        $$x = \frac{(2n+1)\pi}{4}, n \in \mathbb{Z}$$

2. Graph the function
    $$f(x) = \tan\frac{1}{2}\left(x + \frac{\pi}{2}\right).$$
    State the domain and range of the function and the equation of any asymptotes.

    $$\{x|x \neq \frac{(4n+1)\pi}{2}, n \in \mathbb{Z}, x \in \mathbb{R}\}$$
    $$\{y| y \in \mathbb{R}\}$$

    $$x = \frac{(4n+1)\pi}{2}, n \in \mathbb{Z}$$

Assignment   p. 262 # 1 – 7, 9, 13, C1, C2   Quiz Next Day!