

### 10.3 Graphing Tangent

Using radians, find the frequency, period, and location of vertical asymptotes for each function.

1)  $y = 5 \tan \frac{\theta}{2}$

2)  $y = 8 \tan \theta$

3)  $y = \frac{1}{6} \cdot \tan \frac{\theta}{4}$

4)  $y = \frac{1}{3} \cdot \tan 8\theta$

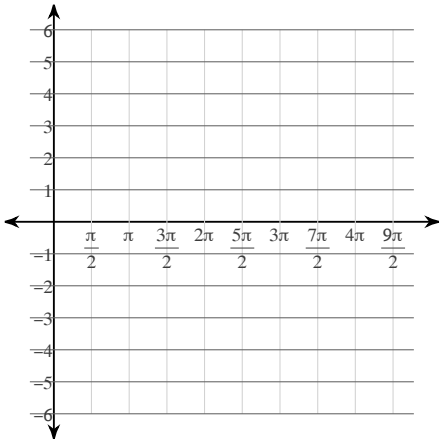
5)  $y = \tan \frac{\theta}{2}$

6)  $y = \frac{1}{8} \cdot \tan \frac{\theta}{5}$

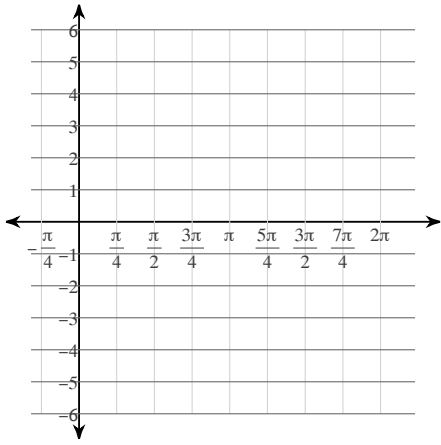
7) Why does the graph of tangent have vertical asymptotes?

Graph each function using radians.

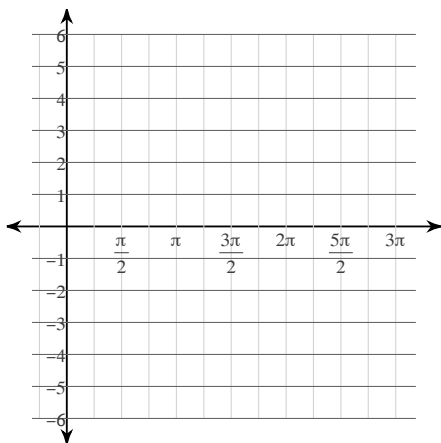
8)  $y = 3 \tan \frac{\theta}{3}$



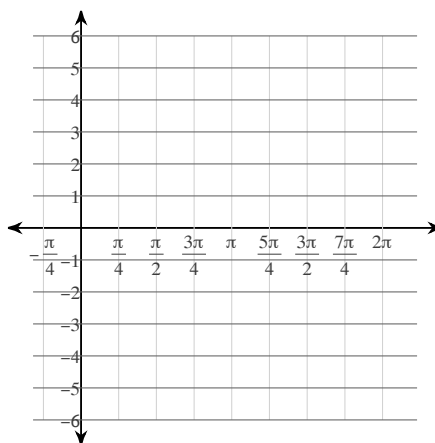
9)  $y = \frac{1}{2} \cdot \tan \theta$



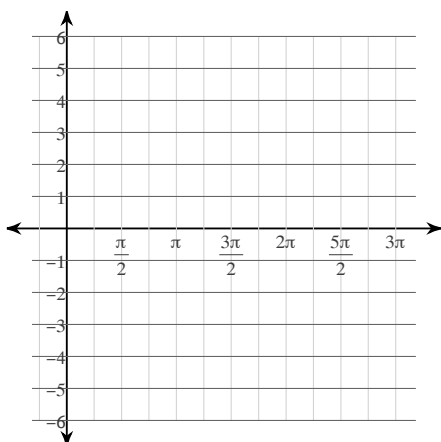
10)  $y = 3 \tan \frac{\theta}{2}$



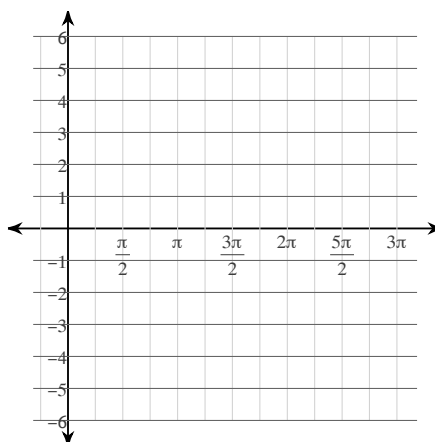
11)  $y = \tan 2\theta$



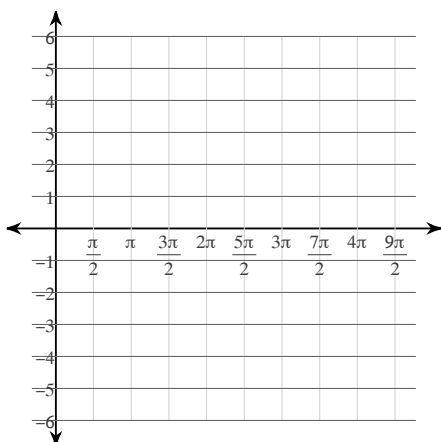
12)  $y = \tan \frac{\theta}{2}$



13)  $y = 4 \tan \frac{\theta}{2}$



14)  $y = 2 \tan \frac{\theta}{3}$



15)  $y = \frac{1}{2} \cdot \tan \frac{\theta}{3}$

