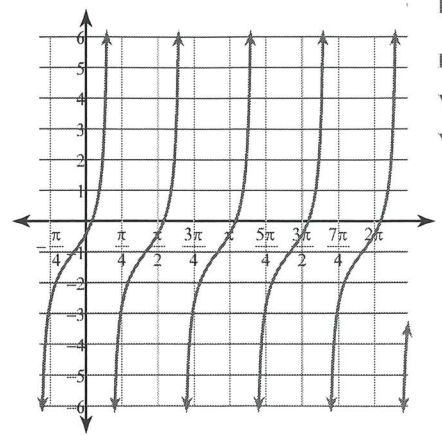


8.2 - sol

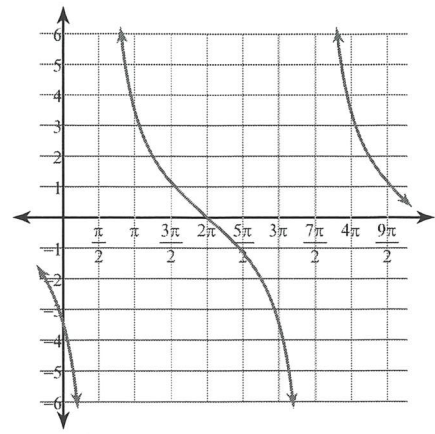
Find the period in radians, the phase shift in radians, the vertical shift, and two vertical asymptotes (if any). Then sketch the graph using radians.

5) $y = \tan\left(2\theta - \frac{11\pi}{6}\right) - 1$



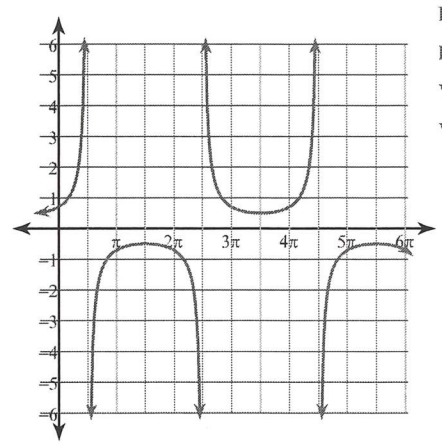
Period: $\frac{\pi}{2}$
 Phase shift: Right $\frac{11\pi}{12}$
 Vert. shift: Down 1
 Vert asym: $x = \frac{7\pi}{6}$
 $x = \frac{2\pi}{3}$

6) $y = 2\cot\left(\frac{\theta}{3} + \frac{5\pi}{6}\right)$



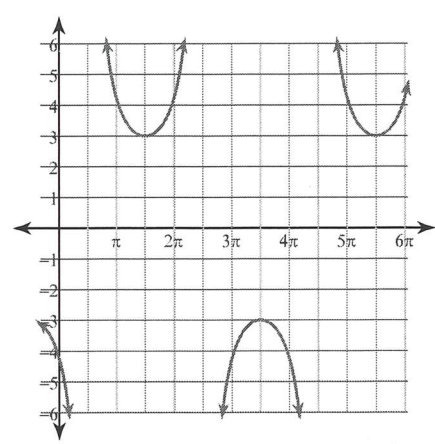
Period: 3π
 Phase shift: Left $\frac{5\pi}{2}$
 Vert. shift: None
 Vert asym: $x = -\pi$
 $x = -4\pi$

7) $y = \frac{1}{2} \cdot \csc\left(\frac{\theta}{2} + \frac{3\pi}{4}\right)$



Period: 4π
 Phase shift: Left $\frac{3\pi}{2}$
 Vert. shift: None
 Vert asym: $x = \frac{3\pi}{2}$
 $x = \frac{\pi}{2}$

8) $y = 3\sec\left(\frac{\theta}{2} - \frac{3\pi}{4}\right)$



Period: 4π
 Phase shift: Right $\frac{3\pi}{2}$
 Vert. shift: None
 Vert asym: $x = \frac{5\pi}{2}$
 $x = \frac{\pi}{2}$