c) $g(x) = \csc x$ on $\left[\frac{\pi}{6}, \frac{\pi}{3}\right]$

$g'(x) = -\csc x \cot x = -\frac{1}{\sin x} \cdot \frac{\cos x}{\sin x} = \frac{-\cos x}{\sin^2 x}$

$-\cos x = 0$ $\qquad$ $\sin^2 x = 0$

$x = \frac{\pi}{2}, \frac{3\pi}{2} \ldots$ $\qquad$ $x = 0, \pi, \ldots$

NOT IN INTERVAL!

x	$g(x)$
$\frac{\pi}{6}$	$\csc\frac{\pi}{6} = \frac{1}{\sin\frac{\pi}{6}} = 2$
$\frac{\pi}{3}$	$\csc\frac{\pi}{3} = \frac{1}{\sin\frac{\pi}{3}} = \frac{2}{\sqrt{3}} \approx 1.\_$

Abs MAX: $\left(\frac{\pi}{6}, 2\right)$

Abs MIN: $\left(\frac{\pi}{3}, \frac{2}{\sqrt{3}}\right)$

✳ Rolle's Theorem:

Let f be continuous on $[a,b]$ and differentiable on (a,b). If $f(a) = f(b)$, there exists at least one number $c \in (a,b)$ such that $f'(c) = 0$.