## Name

**1.** Sketch the graph of the function  $y = \ln x$  into the coordinate plane on the left and the graph of the function  $y = \ln(\cos x)$ , with  $-\frac{\pi}{2} < x < \frac{\pi}{2}$ , into the coordinate plane on the right. (No need to resort to a detailed graphing procedure).



**2.** Show that the derivative of  $f(x) = -\ln(\cos x)$  is  $f'(x) = \tan x$ .

## Quiz