

y-axis

$$y = \tan x, -\frac{\pi}{2} < x < \frac{\pi}{2}$$

x-axis

$-\frac{\pi}{2}$

$\frac{\pi}{2}$

(a)

y-axis

$$y = \arctan x$$

x-axis

$\frac{\pi}{2}$

$-\frac{\pi}{2}$

(b)