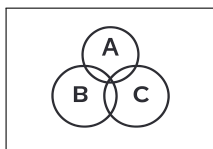
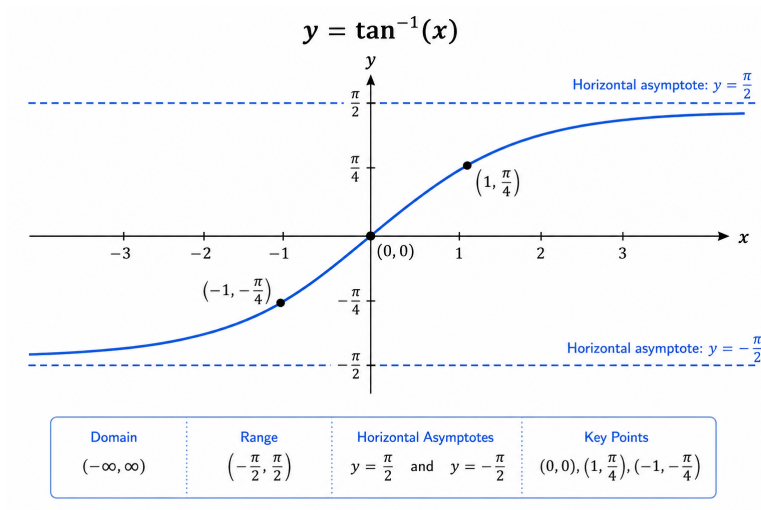
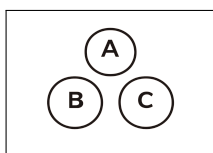


40 Inverse Trig Functions Domain and Range

C



$$y = \tan^{-1}(x)$$

$$\text{Dom} = [-\infty, \infty]$$

$$\text{Range} = [-\pi/2, \pi/2]$$



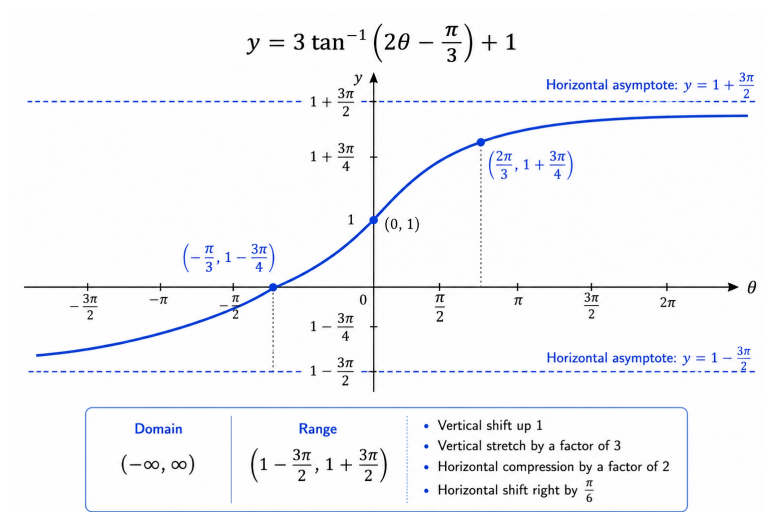
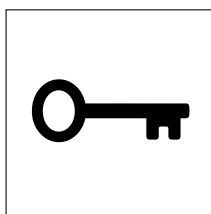
$$y = 3 \tan^{-1}(2\theta - \pi/3) + 1$$

$$\text{Range} = ?$$

$$\text{Domain} = ?$$

40 Inverse Trig Functions Domain and Range

C



$$-\pi/2 < \tan^{-1}(x) < \pi/2$$

$$-3\pi/2 < 3 \tan^{-1}(x) < 3\pi/2$$

$$1 - 3\pi/2 < 3 \tan^{-1}(x) + 1 < 1 + 3\pi/2$$

$$\text{Range} = [1 - 3\pi/2, 1 + 3\pi/2]$$

$$\text{Domain} = [-\infty, \infty]$$