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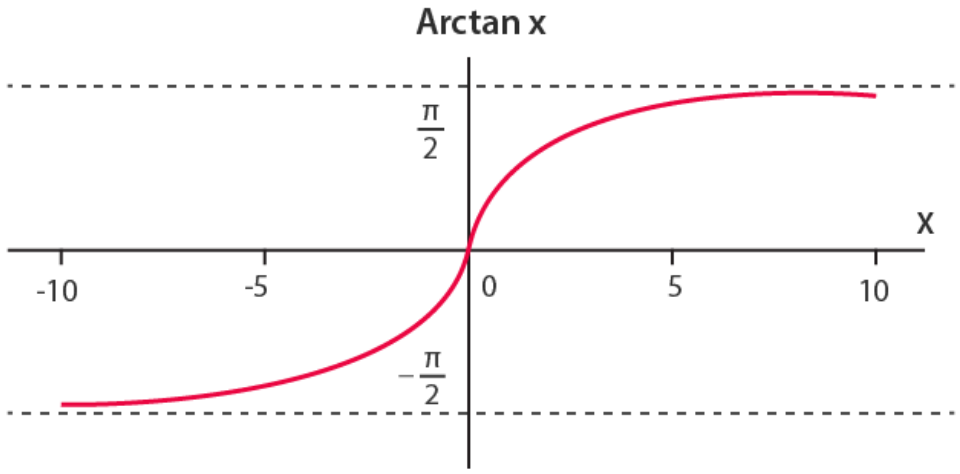
Arctangent Function

Arctangent function is the inverse of the tangent function denoted by $\tan^{-1}x$. It is represented in the graph as shown below:



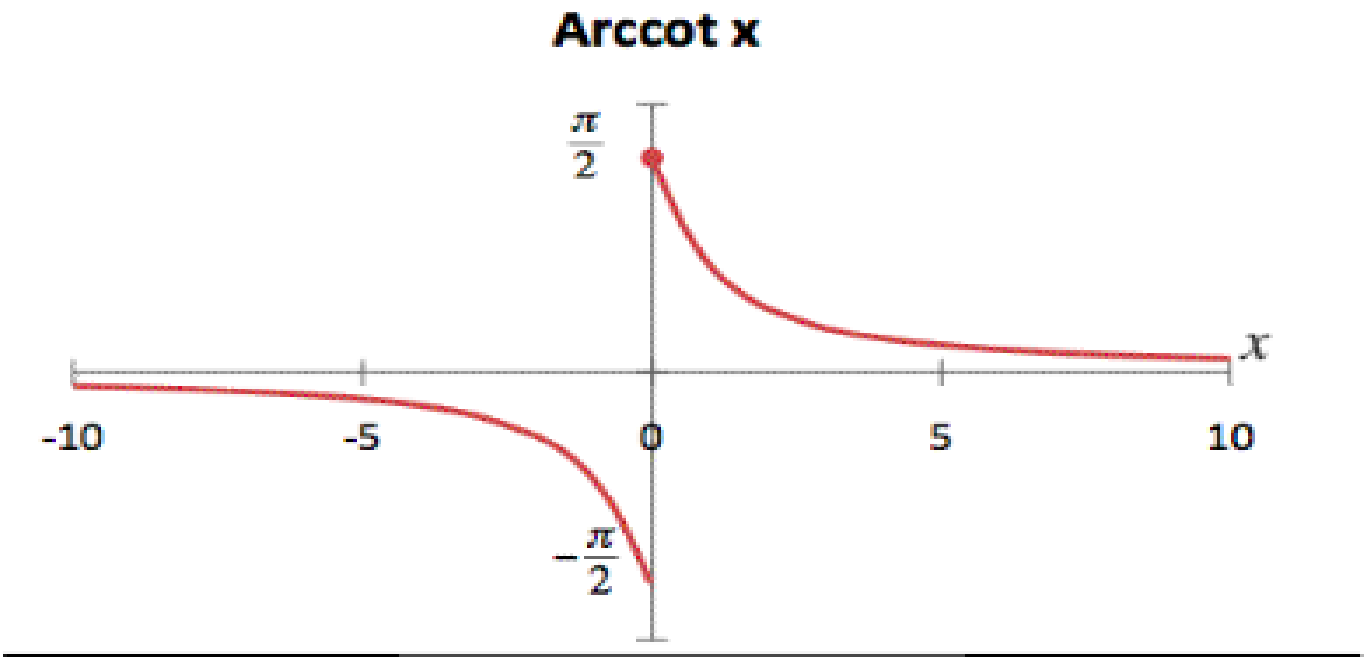
Therefore, the inverse of tangent function can be expressed as; **$y = \tan^{-1}x$ (arctangent *x*)**

Domain & Range of Arctangent:

Domain	$-\infty < x < \infty$
Range	$-\pi/2 < y < \pi/2$

Arccotangent (Arccot) Function

Arccotangent function is the inverse of the cotangent function denoted by $\cot^{-1}x$. It is represented in the graph as shown below:



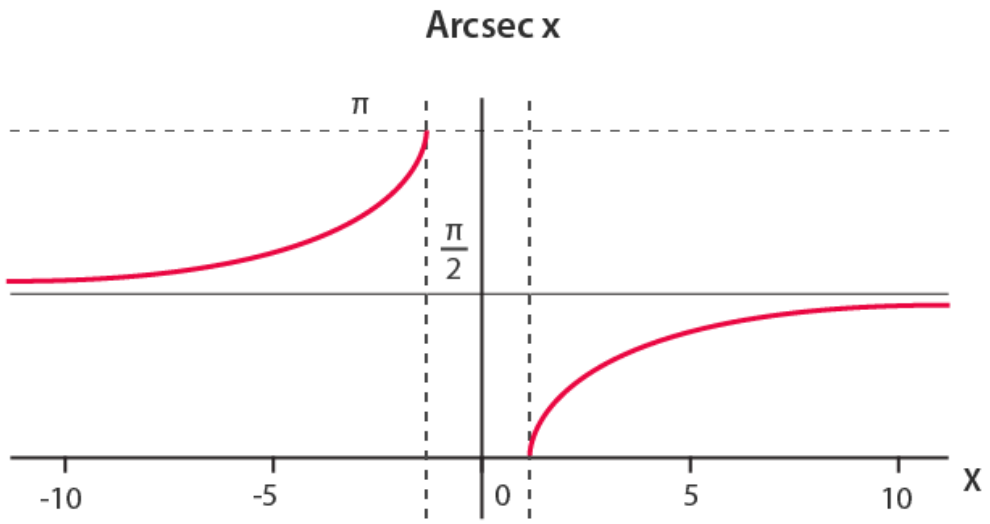
Therefore, the inverse of cotangent function can be expressed as; **y = cot^{-1}x (arccotangent *x*)**

Domain & Range of Arccotangent:

Domain	$-\infty < x < \infty$
Range	$0 < y < \pi$

Arcsecant Function

What is arcsecant (arcsec)function? Arcsecant function is the inverse of the secant function denoted by $\sec^{-1}x$. It is represented in the graph as shown below:



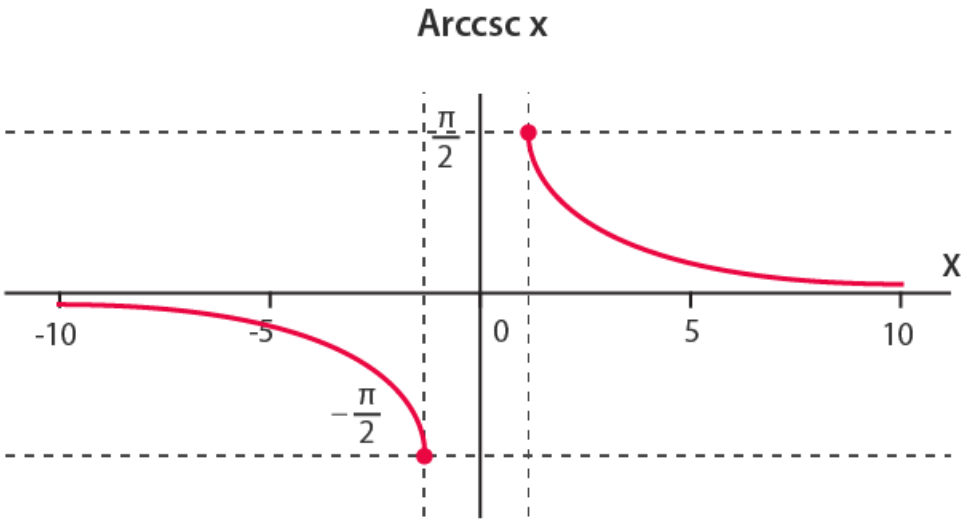
Therefore, the inverse of secant function can be expressed as; **y = sec^{-1}x (arcsecant *x*)**

Domain & Range of Arcsecant:

Domain	$-\infty \le x \le -1$ or $1 \le x \le \infty$
Range	$0 \le y \le \pi, y \ne \pi/2$

Arccosecant Function

What is arccosecant (arccsc *x*) function? Arccosecant function is the inverse of the cosecant function denoted by cosec^{-1}x. It is represented in the graph as shown below:



Therefore, the inverse of cosecant function can be expressed as; **y = cosec^{-1}x (arccosecant *x*)**

Domain & Range of Arccosecant is:

Domain	$-\infty \le x \le -1$ or $1 \le x \le \infty$
Range	$-\pi/2 \le y \le \pi/2, y \ne 0$