• Where do they come from?? Let's look back at that chart from 4.4:

θ	sinθ	cosθ	tanθ	cotθ
0				
π/2				
π				
$3\pi/2$				



How to graph tangent and cotangent

The biggest thing to remember here is that both these functions have π as their default period instead of 2π . So graph the asymptotes first, and then the rest of the function. Essentially you are just graphing a curve like $y = x^3$ a bunch of times.

Examples:





- Symmetric with respect to the: *origin* so is and *odd function* $(\tan(-x)=-\tan x)$
- Zeros:
- Max:

Min:



- Symmetric with respect to the: *origin* so is and *odd function* ($\cot(-x) = -\cot x$)
- Zeros:
- Max: Min: