Graphs of other Trig Functions

$\sin\theta$

$\cos\theta$

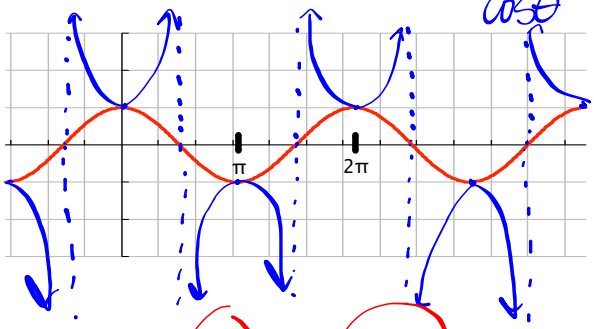
$\tan\theta = \frac{\sin\theta}{\cos\theta}$

$\csc\theta = \frac{1}{\sin\theta}$

$\sec\theta = \frac{1}{\cos\theta}$

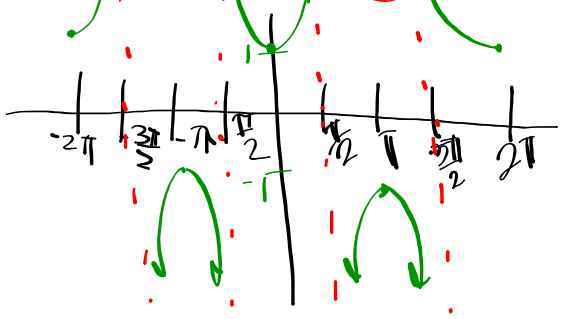
$\cot\theta = \frac{\cos\theta}{\sin\theta}$

Secant $= \frac{1}{\cos\theta}$

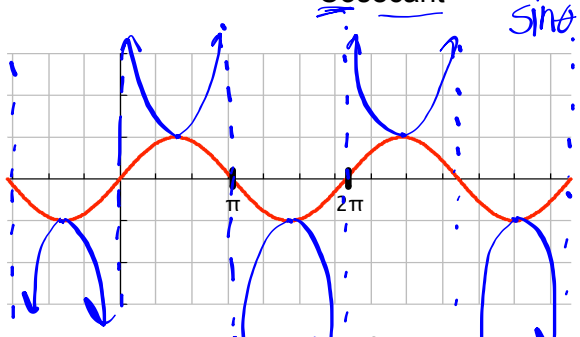


$P = 2\pi$

	0	π/2	π	3π/2	2π
cosθ	1	0	−1	0	1
secθ	1	und	−1	und	1

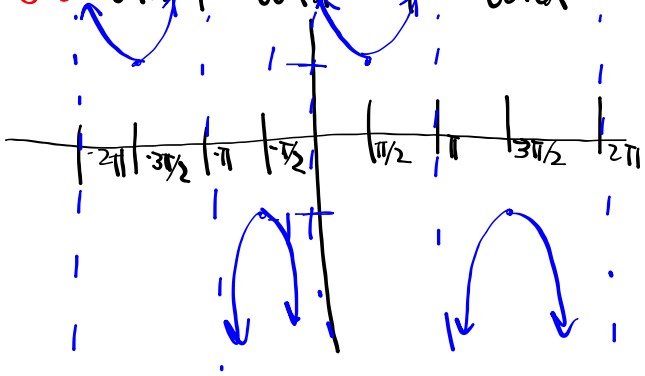


Cosecant $= \frac{1}{\sin\theta}$

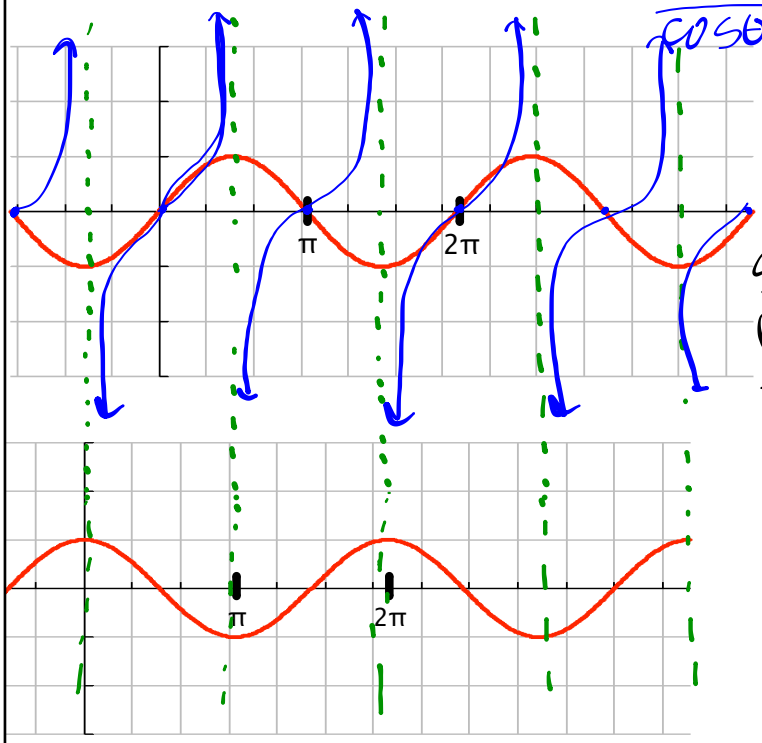


$P = 2\pi$

	0	π/2	π	3π/2	2π
sinθ	0	1	0	−1	0
cscθ	und	1	und	−1	und



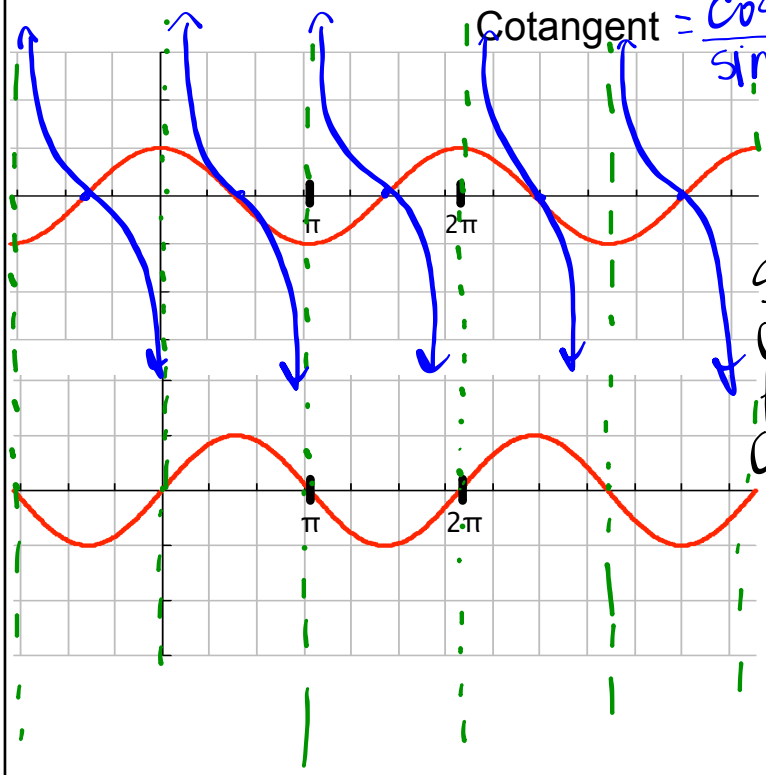
Tangent $= \frac{\sin\theta}{\cos\theta}$



$P = \pi$

	0	π/2	π	3π/2	2π
sinθ	0	1	0	-1	0
cosθ	1	0	-1	0	1
tanθ	0	NA	0	NA	0

Cotangent $= \frac{\cos\theta}{\sin\theta}$



$P = \pi$

	0	π/2	π	3π/2	2π
sinθ	0	1	0	-1	0
cosθ	1	0	-1	0	1
~~tanθ~~					
cotθ	NA	0	NA	0	NA

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Graphing Reminders:

1. Graph two periods- 1 positive 1 negative
2. Make four tick marks, the last will be the period
3. Graph the functions key points on your altered period then alter based off of the amplitude, phase shift, then vertical shift

x	$\sin\theta$	$\cos\theta$	$\tan\theta$	$\csc\theta$	$\sec\theta$	$\cot\theta$
0	0	1	0	und.	1	und
$\frac{\pi}{2}$	1	0	und.	1	und.	0
π	0	-1	0	und	-1	und.
$\frac{3\pi}{2}$	-1	0	und.	-1	und	0
2π	0	1	0	und	1	und.

Find a value between π and $\frac{3\pi}{2}$ that solves $\sec x = -2$

$\cos x = -\frac{1}{2}$

$\pi/3$

$\boxed{4\pi/3}$