

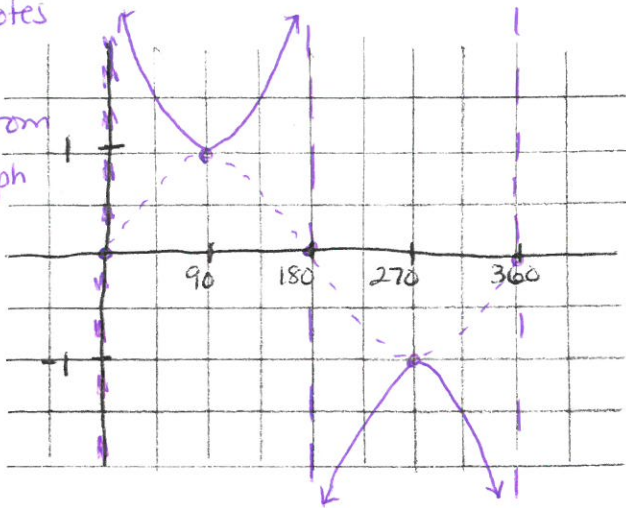
Section 3-3 Graphs of Tangent, Cotangent, Secant and Cosecant

\*\*Graph  $y = \sin \theta$  first, then do reciprocal

1.  $y = \csc \theta$

x	0	90	180	270	360
y	und	1	und	-1	und

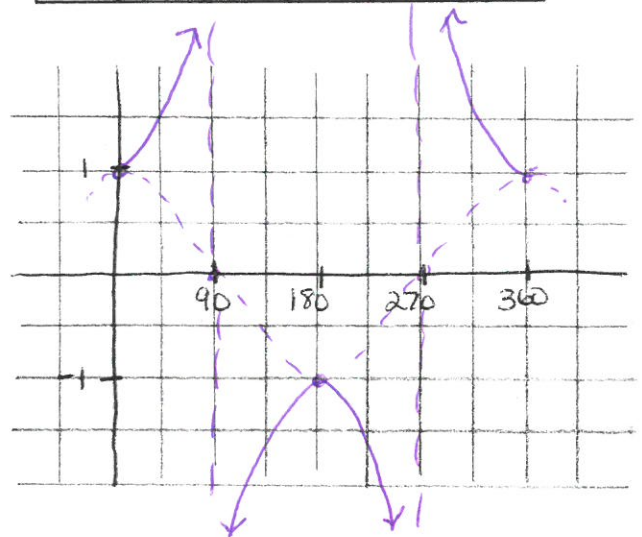
① draw asymptotes  
② draw away from sine graph



2.  $y = \sec \theta$

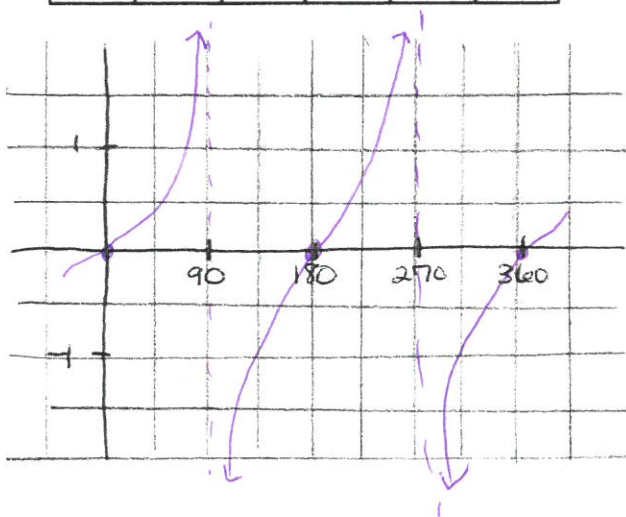
\* graph  $\cos \theta$   
1st

x	0	90	180	270	360
y	1	und	-1	und	1



3. To understand tangent graph, use the Quotient Property  $\tan \theta = \frac{\sin \theta}{\cos \theta}$   
 $y = \tan \theta$

x	0	90	180	270	360
y	0	und	0	und	0



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

