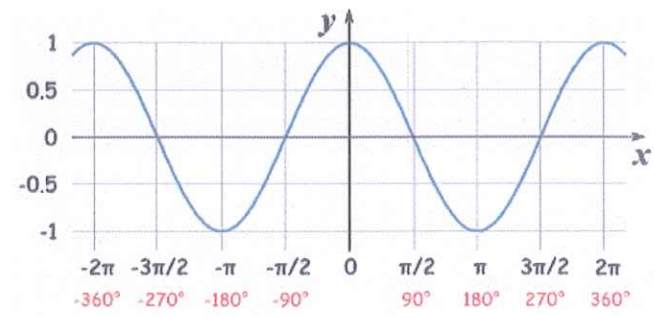
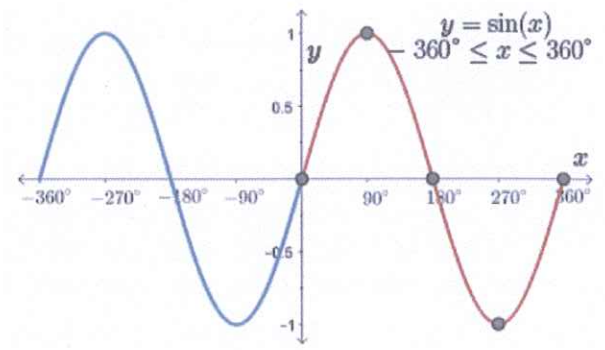
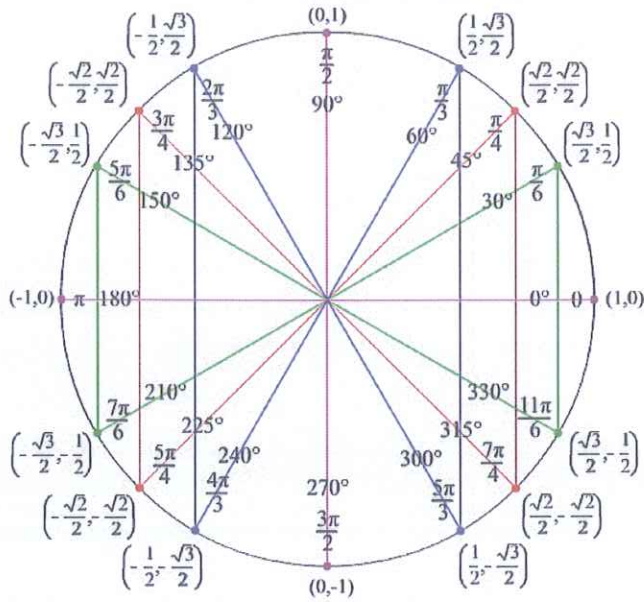


Algebra 3 Note Sheet: MUST HAND IN WITH FINAL EXAM

NAME _____



Reciprocal Identities

$\sin\theta = 1/\csc\theta$	$\cos\theta = 1/\sec\theta$	$\tan\theta = 1/\cot\theta$
$\csc\theta = 1/\sin\theta$	$\sec\theta = 1/\cos\theta$	$\cot\theta = 1/\tan\theta$

Pythagorean Identities

$x^2 + y^2 = 1$ on the unit circle so...

$\cos^2\theta + \sin^2\theta = 1$		
$\cos^2\theta = 1 - \sin^2\theta$	$\cot^2\theta + 1 = \csc^2\theta$	$1 + \tan^2\theta = \sec^2\theta$
$\sin^2\theta = 1 - \cos^2\theta$	$\cot^2\theta = \csc^2\theta - 1$	$\tan^2\theta = \sec^2\theta - 1$

Relationships with Negatives

$\sin(-\theta) = -\sin\theta$	$\cos(-\theta) = \cos\theta$	$\tan(-\theta) = -\tan\theta$
$\csc(-\theta) = -\csc\theta$	$\sec(-\theta) = \sec\theta$	$\cot(-\theta) = -\cot\theta$

Sine/Cosine Relationships:

$\tan\theta = \sin\theta/\cos\theta$	$\cot\theta = \cos\theta/\sin\theta$
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	0	1	2	3	4	5	6	7	8	9
3	.0013	.0010	.0007	.0005	.0003	.0002	.0002	.0001	.0001	.0000
2	.0228	.0179	.0139	.0107	.0082	.0062	.0047	.0035	.0026	.0019
1	.1587	.1357	.1151	.0968	.0808	.0668	.0548	.0446	.0359	.0287
0	.5000	.4602	.4207	.3821	.3446	.3085	.2743	.2420	.2119	.1841
0	.5000	.5398	.5793	.6179	.6554	.6915	.7257	.7580	.7881	.8159
1	.8413	.8643	.8849	.9032	.9192	.9332	.9452	.9554	.9641	.9713
2	.9772	.9821	.9861	.9893	.9918	.9938	.9953	.9965	.9974	.9981
3	.9987	.9990	.9993	.9995	.9997	.9998	.9998	.9999	.9999	1.0000