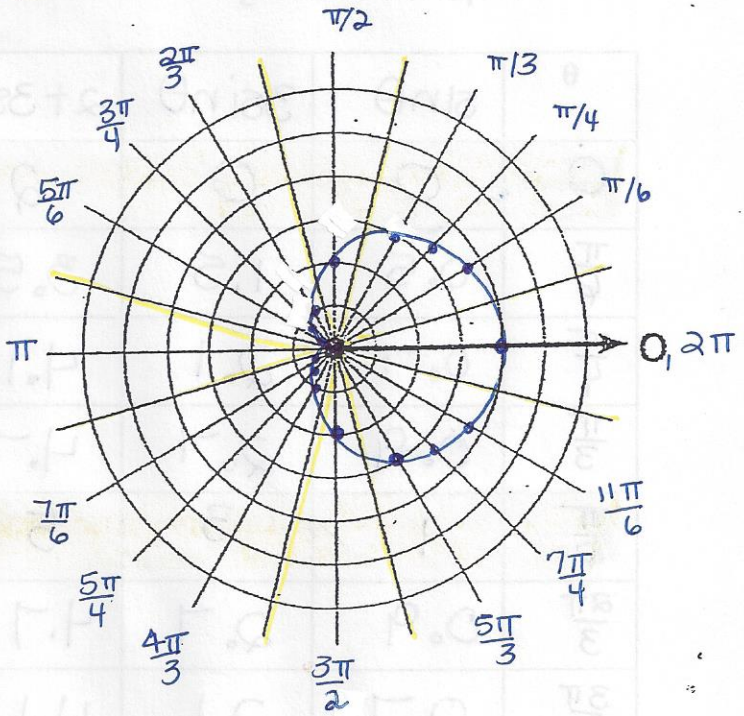
RIDDLE
PRE-CALCULUS
POLAR GRAPHS

NAME Example 1

Graph the following: $r = 2 + 2\cos\theta$

θ	$\cos\theta$	$2\cos\theta$	$2+2\cos\theta$
0	1	2	4
$\frac{\pi}{6}$	0.9	1.8	3.8
$\frac{\pi}{4}$	0.7	1.4	3.4
$\frac{\pi}{3}$	0.5	1	3
$\frac{\pi}{2}$	0	0	2
$\frac{2\pi}{3}$	-0.5	-1	1
$\frac{3\pi}{4}$	-0.7	-1.4	0.6
$\frac{5\pi}{6}$	-0.9	-1.8	0.2
π	-1	-2	0
$\frac{7\pi}{6}$	-0.9	-1.8	0.2
$\frac{5\pi}{4}$	-0.7	-1.4	0.6
$\frac{4\pi}{3}$	-0.5	-1	1
$\frac{3\pi}{2}$	0	0	2
$\frac{5\pi}{3}$	0.5	1	3
$\frac{7\pi}{4}$	0.7	1.4	3.4
$\frac{11\pi}{6}$	0.9	1.8	3.8
2π	1	2	4



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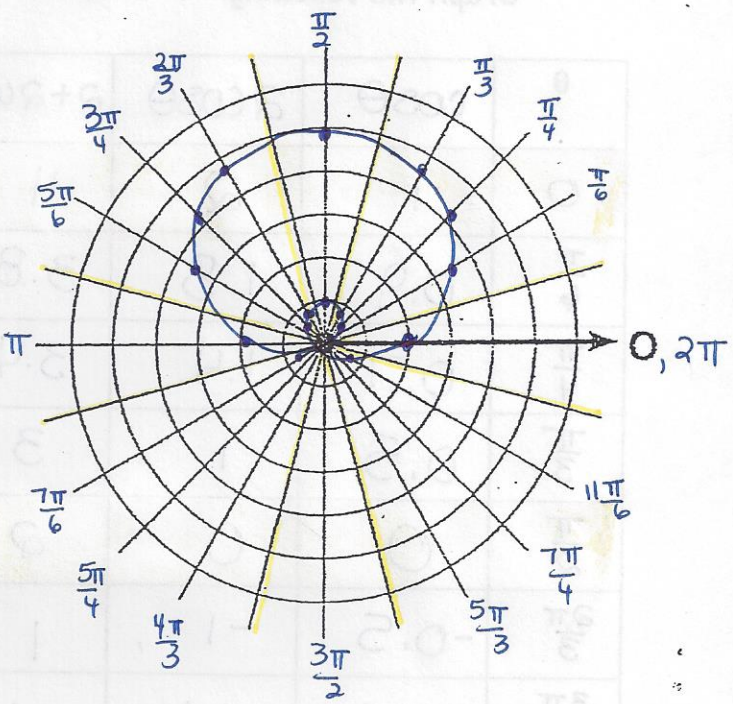
RIDDLE
PRE-CALCULUS
POLAR GRAPHS

NAME _____

Graph the following: $r = 2 + 3\sin\theta$

θ	$\sin\theta$	$3\sin\theta$	$2+3\sin\theta$
0	0	0	2
$\frac{\pi}{6}$	0.5	1.5	3.5
$\frac{\pi}{4}$	0.7	2.1	4.1
$\frac{\pi}{3}$	0.9	2.7	4.7
$\frac{\pi}{2}$	1	3	5
$\frac{2\pi}{3}$	0.9	2.7	4.7
$\frac{3\pi}{4}$	0.7	2.1	4.1
$\frac{5\pi}{6}$	0.5	1.5	3.5
π	0	0	2
$\frac{7\pi}{6}$	-0.5	-1.5	0.5
$\frac{5\pi}{4}$	-0.7	-2.1	-0.1
$\frac{4\pi}{3}$	-0.9	-2.7	-0.7
$\frac{3\pi}{2}$	-1	-3	-1
$\frac{5\pi}{3}$	-0.9	-2.7	-0.7
$\frac{7\pi}{4}$	-0.7	-2.1	-0.1
$\frac{11\pi}{6}$	-0.5	-1.5	0.5
2π	0	0	2



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