

$t$  Angle  $x$   $v$   $a$   $F$   $F$   $P$   $P$   $F$   $F$   $P$   $P$   
 $\frac{Time}{(sec)}$   $\theta = \omega t$   $Displace.$   $Velocity$   $accel.$   $(32 lb)$   $K_{32} + I_{32}$   $(F = K_{32})$   $F = K_{32} + I_{32}$   $R_{32} \sin \theta$   $R_{32} + I_{32} (F = R_{32} \sin \theta)$   $(F = R_{32} + I_{32})$   
 $(radian)$   $(ft.)$   $(ft/sec)$   $(ft/sec^2)$   $(lb)$   $(lb)$   $(lb/sec^2)$   $(lb/sec^2)$   $(lb)$   $(lb)$   $(lb)$   $(lb)$

0	0	0	+5.50	0	0	32.0	+176.0	+176.0	+32.0	+32.0	+176.0	+176.0
0.125	$\frac{\pi}{16}$	+0.68	5.39	-1.68	-1.68	30.3	172.5	163.3	31.4	29.7	169.2	160.1
0.25	$\frac{\pi}{8}$	1.32	5.08	-3.26	-3.26	28.7	162.6	145.8	29.6	26.3	150.4	133.6
0.375	$\frac{3\pi}{16}$	1.94	4.57	-4.78	-4.78	27.2	146.2	124.3	26.6	21.8	121.6	99.6
0.5	$\frac{\pi}{4}$	2.48	3.89	-6.12	-6.12	25.9	124.5	100.8	22.6	16.5	87.9	64.2
0.625	$\frac{5\pi}{16}$	2.91	3.04	-7.18	-7.18	24.8	97.3	75.4	17.7	10.5	53.8	31.9
0.75	$\frac{3\pi}{8}$	3.23	2.14	-7.97	-7.97	24.0	68.5	51.4	12.5	+4.5	26.8	+9.6
0.875	$\frac{7\pi}{16}$	3.43	1.08	-8.46	-8.46	23.5	34.6	25.4	+6.3	-2.2	6.8	-2.4
1.0	$\frac{\pi}{2}$	+3.5	0	-8.63	-8.63	23.4	0	0	0	-8.6	0	0
		+3.43	-1.08			23.5	-34.6	-25.4	-6.3	-14.8	+6.8	+16.0
						24.0						

1.5	$\frac{3\pi}{4}$											
				-1.68	-1.68	30.3	-172.5	-163.3	-31.4	-33.1	+169.2	+178.4
2.0	$\pi$	0	-5.50	0	0	32.0	-176.0	-176.0	-32.0	-32.0	+176.0	+176.0
		-0.68		+1.68	+1.68	33.7	-172.5	-181.6	-31.4	-29.7	+169.2	+160.1

2.5	$\frac{5\pi}{4}$											
										-4.5		+9.6
			-1.08	+8.46	+8.46	40.5	-34.6	-43.7	-6.3	+2.2	+6.8	-2.4
3.0	$\frac{3\pi}{2}$	-3.5	0	+8.63	+8.63	40.6	0	0	0	+8.6	0	0
			+1.08	+8.46	+8.46	40.5	34.6	43.7	+6.3	+14.8	6.8	+16.0
				+7.97	+7.97	40.0	68.5	85.6	12.5	20.5	26.8	43.9
				+7.18	+7.18	39.2	97.3	119.2	17.7	24.9	53.8	75.7
3.5	$\frac{7\pi}{4}$			+6.12	+6.12	38.1	124.5	148.2	22.6	28.7	87.9	111.6
				+4.78	+4.78	36.8	146.2	168.2	26.6	31.4	121.6	143.5
				+3.26	+3.26	35.3	162.6	179.3	29.6	32.9	150.4	167.1
				+1.68	+1.68	33.7	172.5	181.6	31.4	+33.1	169.2	178.4
4.0	$2\pi$	0	+5.50	0	0	32.0	176.0	176.0	+32.0	+32.0	176.0	+176.0