

In Phase														
ω	Frequency (Hz)	Frequency(ω)	Rad/s	r	Acceleration Amplitude (V)	Acceleration (m/s ²)	Displacement Amplitude(m)	Phase Lead of Acceleration(degrees)	phi experimental	Time Shift	phi	Phi	Y	theoretical Y/ measured y
	20.16		126.67	1.81	0.038	3.765	0.000235	4.5	175.5	0.049	176.8038702	175.5	0.00023266	1.43434768
	19.21		120.70	1.73	0.033	3.270	0.000224	4.5	175.5	0.051	176.4912689	175.5	0.00024336	1.50027451
	18.1		113.73	1.63	0.032	3.171	0.000245	5.6	174.4	0.054	176.0245904	174.4	0.00025975	1.60131476
	18.1		113.73	1.63	0.032	3.171	0.000245	5.6	174.4	0.054	176.0245904	174.4	0.00025975	1.60131476
	17.01		106.88	1.53	0.032	3.171	0.000278	7.4	172.6	0.058	175.4042731	172.6	0.00028212	1.73923193
	16.04		100.78	1.44	0.031	3.072	0.000302	6.7	173.3	0.061	174.63196	173.3	0.00031062	1.91491423
	15.04		94.50	1.35	0.033	3.270	0.000366	9.2	170.8	0.065	173.452592	170.8	0.00035499	2.18844877
	13.82		86.83	1.24	0.031	3.072	0.000407	9.7	170.3	0.07	170.8821715	170.3	0.00045332	2.79466426
	12.95		81.37	1.17	0.035	3.468	0.000524	15.1	164.9	0.074	167.0660559	164.9	0.00059999	3.69888413
	12.04		75.65	1.08	0.048	4.756	0.000831	27.9	152.1	0.077	156.2548705	152.1	0.00100355	6.18674123
	10.92		68.61	0.98	0.08	7.927	0.001684	99.8	80.2	0.066	63.49341884	80.2	0.00202279	12.470284
	10.71		67.29	0.96	0.066	6.540	0.001444	123.3	56.7	0.061	43.61034589	56.7	0.00152913	9.42689703
	11.05		69.43	0.99	0.085	8.423	0.001747	82.4	97.6	0.07	80.74101519	97.6	0.00225751	13.9172725
	10.1		63.46	0.91	0.031	3.072	0.000763	161.5	18.5	0.055	20.20636842	18.5	0.00072212	4.4517858
	8.96		56.30	0.81	0.012	1.189	0.000375	174.8	5.2	0.057	9.224804747	5.2	0.00029732	1.83295597
	7.87		49.45	0.71	0.005	0.495	0.000203	178.4	1.6	0.064	5.719315123	1.6	0.00016234	1.000834
	7.05		44.30	0.63	0.003	0.297	0.000152	474.9	-294.9	-0.045	4.280461117	-294.9	0.00010892	0.67149128
	6.1		38.33	0.55	0.003	0.297	0.000202	1264.5	-1084.5	-0.412	3.170224391	-1085	6.9829E-05	0.43048991
	4.75		29.85	0.43	0.002	0.198	0.000222	1754	-1574	-0.815	2.111634929	-1574	3.6229E-05	0.22334637
	4.18		26.26	0.38	0.003	0.297	0.000431	-95.7	275.7	0.303	1.769280381	275.7	2.6714E-05	0.16469055
	2.88		18.10	0.26	0.001	0.099	0.000303	2099	-1919	-1.679	1.122135643	-1919	1.1675E-05	0.07197387
	1.98		12.44	0.18	0.001	0.099	0.000640	847.7	-667.7	-0.685	0.743306051	-667.7	5.3169E-06	0.03277823

Calibration		99 mV/g
		0.099 V/g
e		0.04 m
k		18277 N/m
Keq		73108 N/m
m		0.0152 Kg
M		14.993 Kg
ω_n		69.8293792 rad/s
ω_d		69.785969 rad/s
u		0.000162209 m
Ai		0.06721 V
g		9.81 m/s ²
af		0.03458 V
del		0.221515522 unitless
zeta		0.03525529 unitless