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H: \ENG-279\website\ENGR160\160-Matlab\example_4_3B.m

```
% Define constants
acceleration_due_to_gravity = [3.7, 8.87, 9.8, 1.6, 3.7,
23.12, 8.96, 8.69, 11.0, 0.58];
time = 0:10:100;
% Map acceleration_due_to_gravity and time into 2D matrices
[g,t] = meshgrid(acceleration_due_to_gravity, time);
% calculate the distances
d= 1/2*g.*t.^2
```

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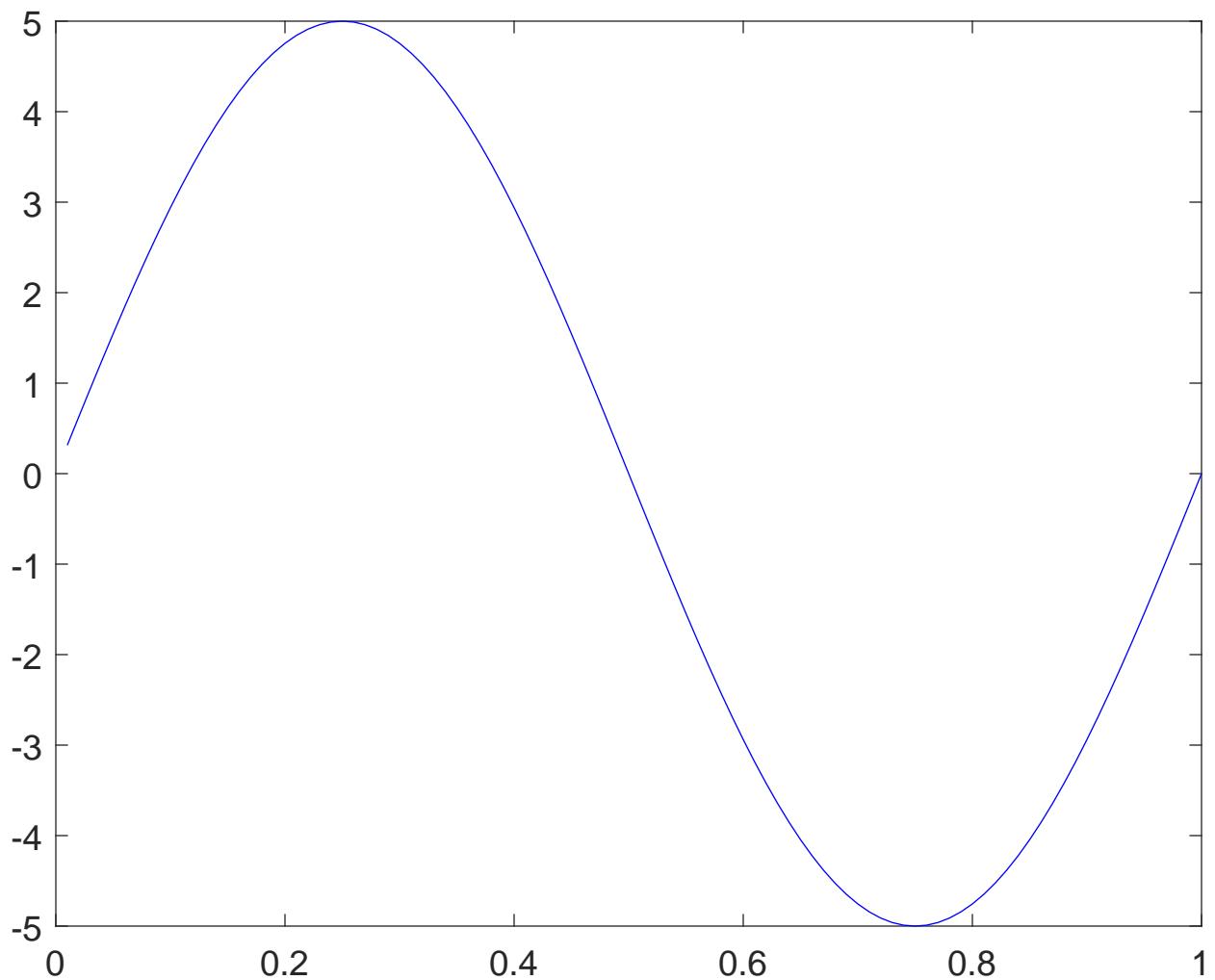
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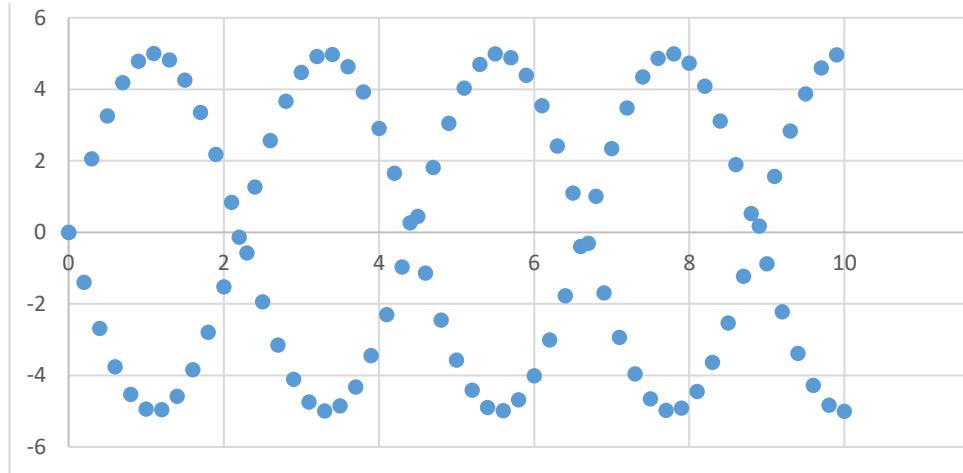
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a=	5	
f	30	Δt
t	0	0 0.002094
	0	0 0
0.2	-1.39708	0
0.3	2.060592	-1.39708
0.4	-2.68286	2.060592
0.5	3.251439	-2.68286
0.6	-3.75494	3.251439
0.7	4.183278	-3.75494
0.8	-4.52789	4.183278
0.9	4.78188	-4.52789
1	-4.94016	4.78188
1.1	4.999559	-4.94016
1.2	-4.95889	4.999559
1.3	4.818977	-4.95889
1.4	-4.58261	4.818977
1.5	4.254518	-4.58261
1.6	-3.84127	4.254518
1.7	3.351146	-3.84127
1.8	-2.79395	3.351146
1.9	2.180824	-2.79395
2	-1.52405	2.180824
2.1	0.836779	-1.52405
2.2	-0.13276	0.836779
2.3	-0.57392	-0.13276
2.4	1.269117	-0.57392
2.5	-1.93891	1.269117
2.6	2.569892	-1.93891
2.7	-3.14944	2.569892
2.8	3.665952	-3.14944
2.9	-4.10909	3.665952
3	4.469983	-4.10909
3.1	-4.74141	4.469983
3.2	4.917939	-4.74141
3.3	-4.99603	4.917939
3.4	4.974134	-4.99603
3.5	-4.85268	4.974134
3.6	4.634093	-4.85268
3.7	-4.32276	4.634093
3.8	3.924902	-4.32276
3.9	-3.44849	3.924902
4	2.903056	-3.44849
4.1	-2.29952	2.903056
4.2	1.649954	-2.29952
4.3	-0.96737	1.649954
4.4	0.265418	-0.96737

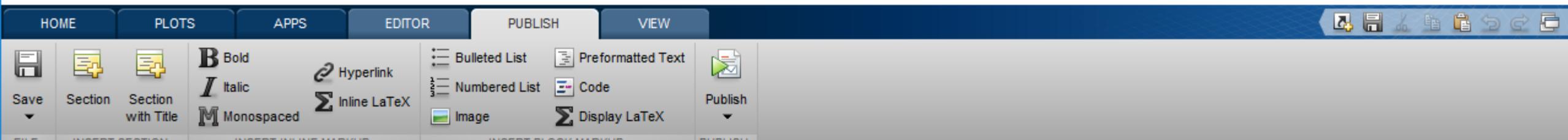
4.5	0.441843	0.265418
4.6	-1.14026	0.441843
4.7	1.815857	-1.14026
4.8	-2.45511	1.815857
4.9	3.04522	-2.45511
5	-3.57438	3.04522
5.1	4.032003	-3.57438
5.2	-4.40892	4.032003
5.3	4.697599	-4.40892
5.4	-4.89225	4.697599
5.5	4.988986	-4.89225
5.6	-4.98587	4.988986
5.7	4.882954	-4.98587
5.8	-4.68231	4.882954
5.9	4.387949	-4.68231
6	-4.00576	4.387949
6.1	3.543402	-4.00576
6.2	-3.01012	3.543402
6.3	2.41659	-3.01012
6.4	-1.77469	2.41659
6.5	1.097273	-1.77469
6.6	-0.39789	1.097273
6.7	-0.30945	-0.39789
6.8	1.010602	-0.30945
6.9	-1.69153	1.010602
7	2.338593	-1.69153
7.1	-2.93885	2.338593
7.2	3.480292	-2.93885
7.3	-3.95207	3.480292
7.4	4.344754	-3.95207
7.5	-4.65047	4.344754
7.6	4.863115	-4.65047
7.7	-4.97842	4.863115
7.8	4.994083	-4.97842
7.9	-4.90979	4.994083
8	4.727226	-4.90979
8.1	-4.45005	4.727226
8.2	4.0838	-4.45005
8.3	-3.63582	4.0838
8.4	3.115061	-3.63582
8.5	-2.53196	3.115061
8.6	1.898178	-2.53196
8.7	-1.22641	1.898178
8.8	0.530087	-1.22641
8.9	0.176841	0.530087
9	-0.88023	0.176841
9.1	1.566001	-0.88023

9.2	-2.22043	1.566001
9.3	2.830414	-2.22043
9.4	-3.38375	2.830414
9.5	3.869358	-3.38375
9.6	-4.27752	3.869358
9.7	4.600071	-4.27752
9.8	-4.83055	4.600071
9.9	4.964345	-4.83055
10	-4.99878	4.964345
	0	

Chart Title







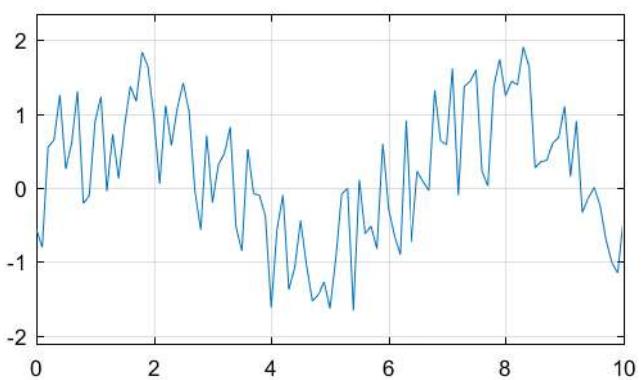
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H:\ENG-279\website\ENGR160\160-Matlab\example_4_3B.m

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% Define constants
acceleration_due_to_gravity = [3.7, 8.87, 9.8, 1.6, 3.7,
23.12, 8.96, 8.69, 11.0, 0.58];
time = 0:10:100;
% Map acceleration_due_to_gravity and time into 2D matrices
[g,t] = meshgrid(acceleration_due_to_gravity, time);
% calculate the distances
d= 1/2*g.*t.^2
```

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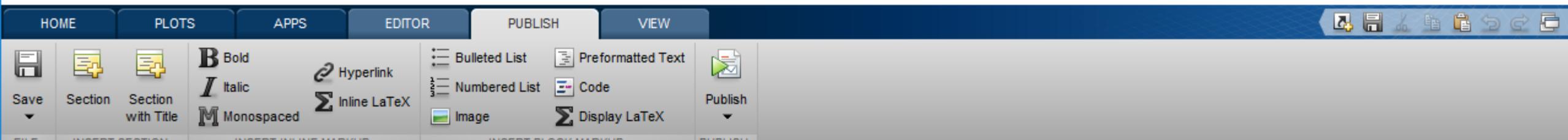
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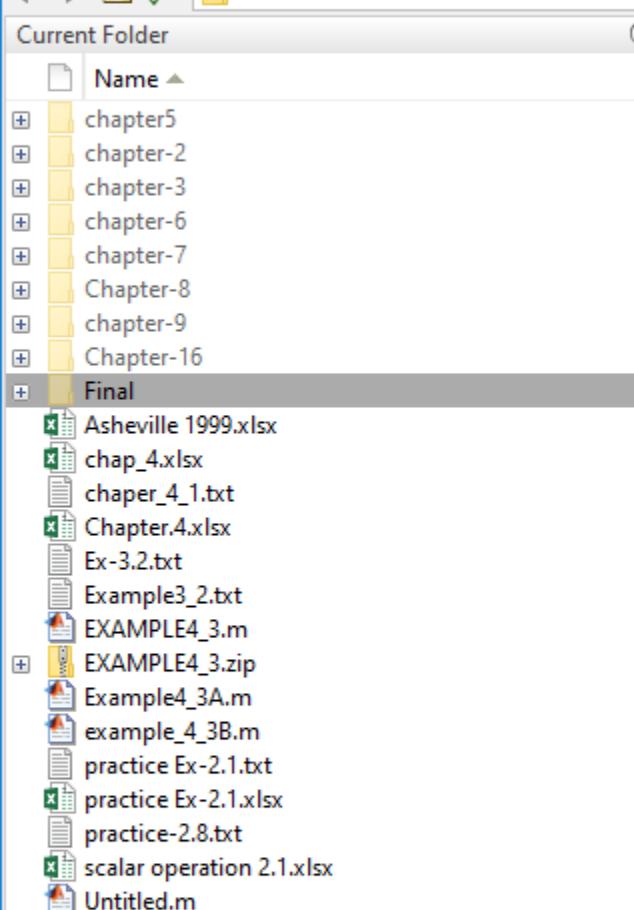
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```
1 % Define constants
2 acceleration_due_to_gravity = [3.7, 8.87, 9.8, 1.6, 3.7,
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5 % Map acceleration_due_to_gravity and time into 2D matrices
6 [g,t] = meshgrid(acceleration_due_to_gravity, time);
7 % calculate the distances
8 d= 1/2*g.*t.^2
9
10
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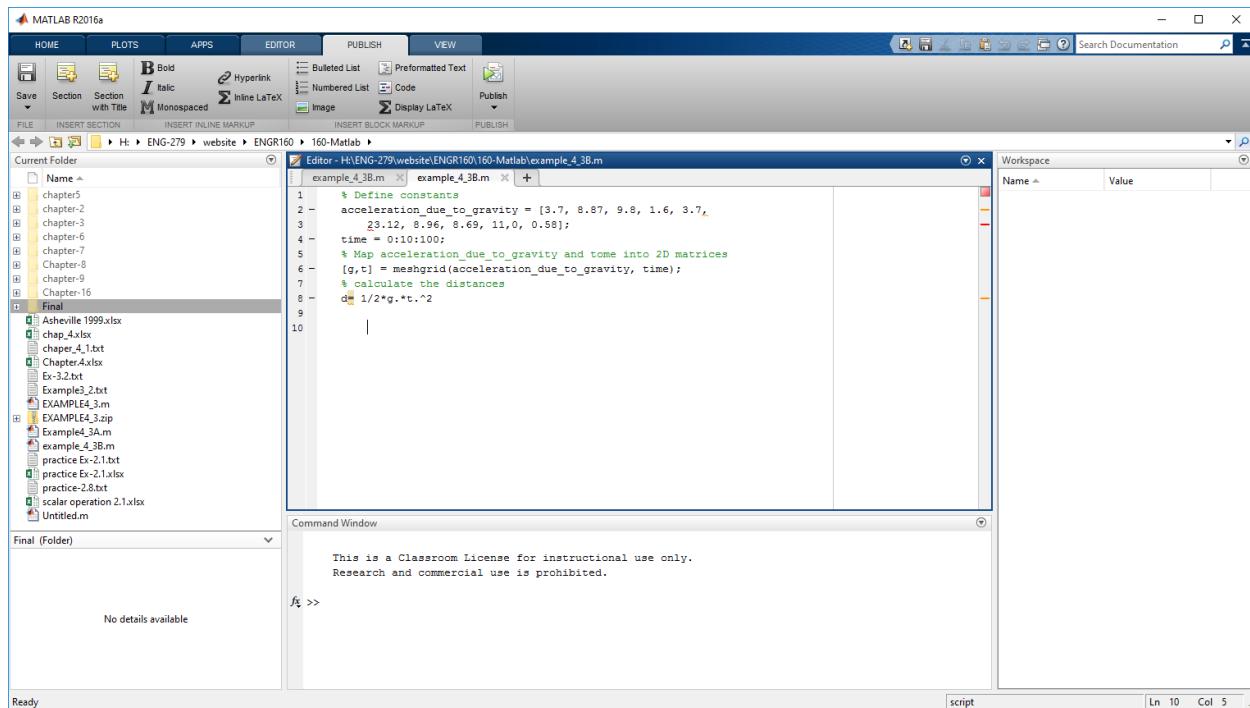
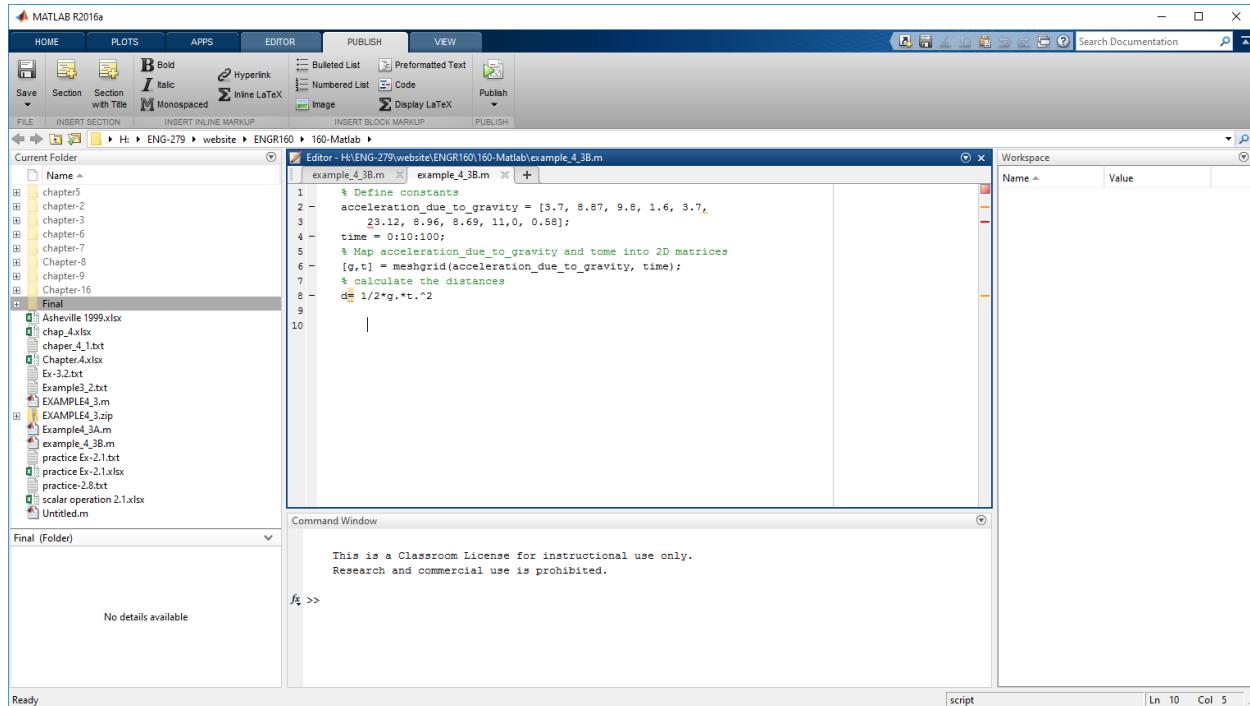
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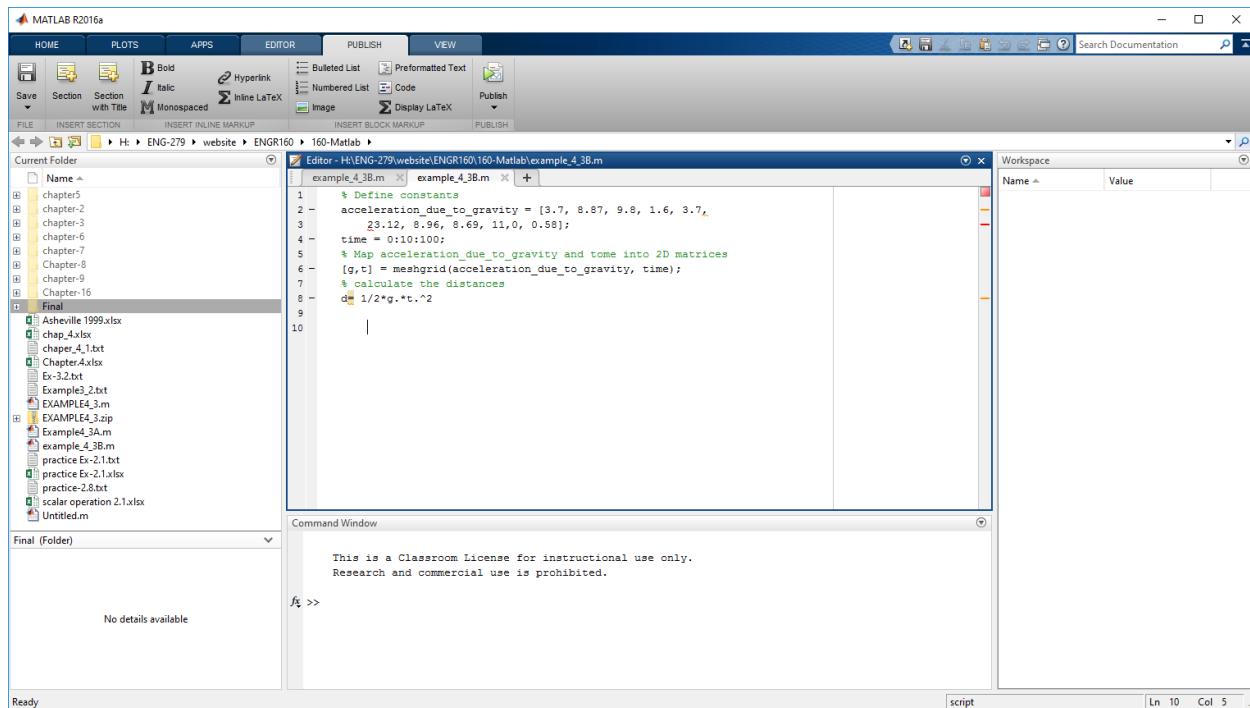
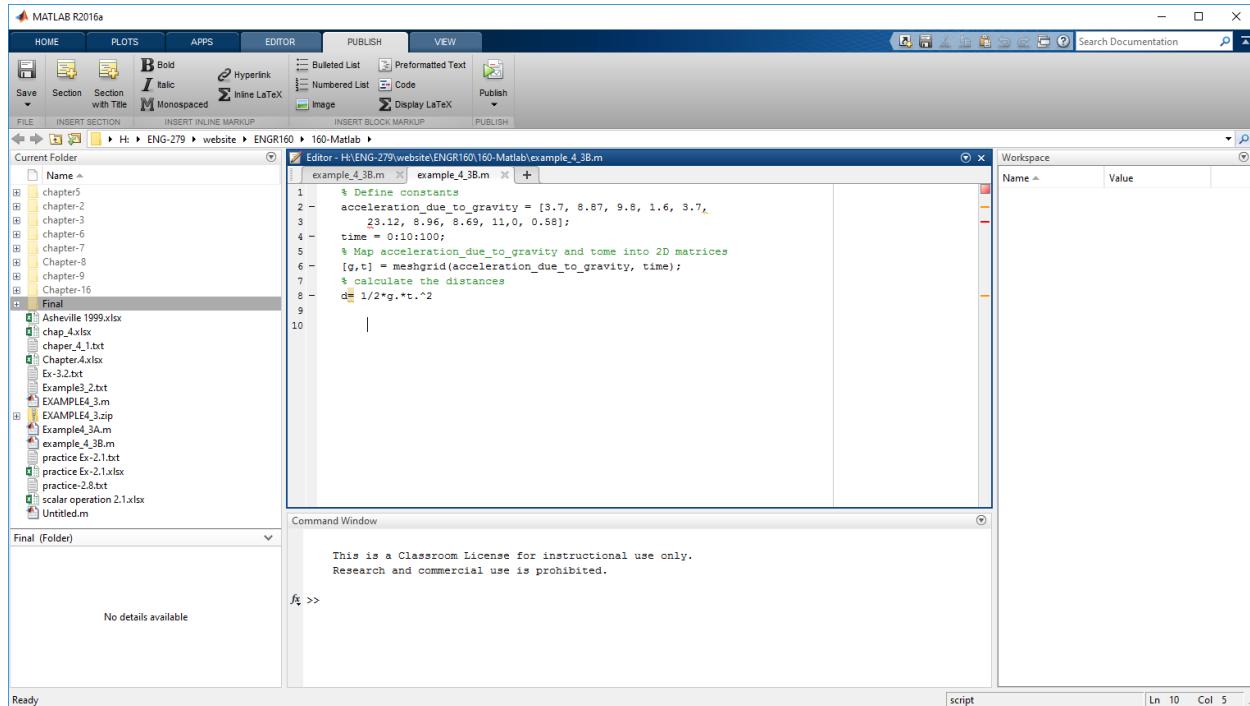
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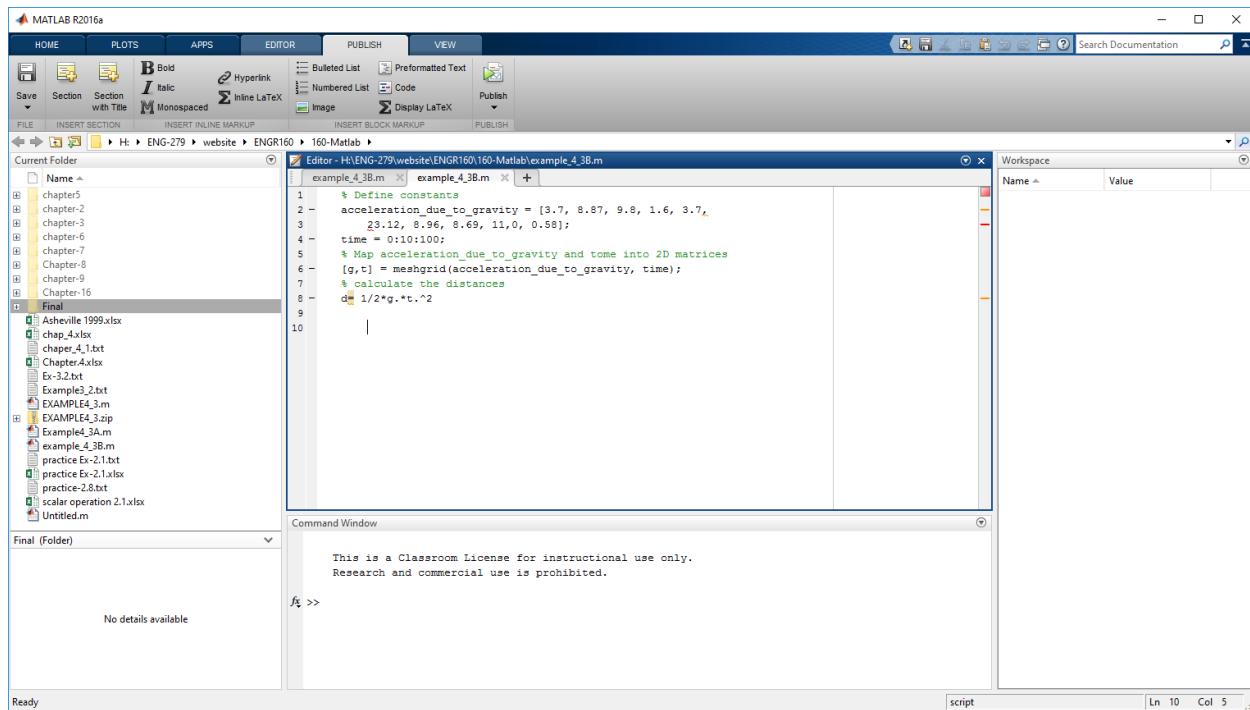
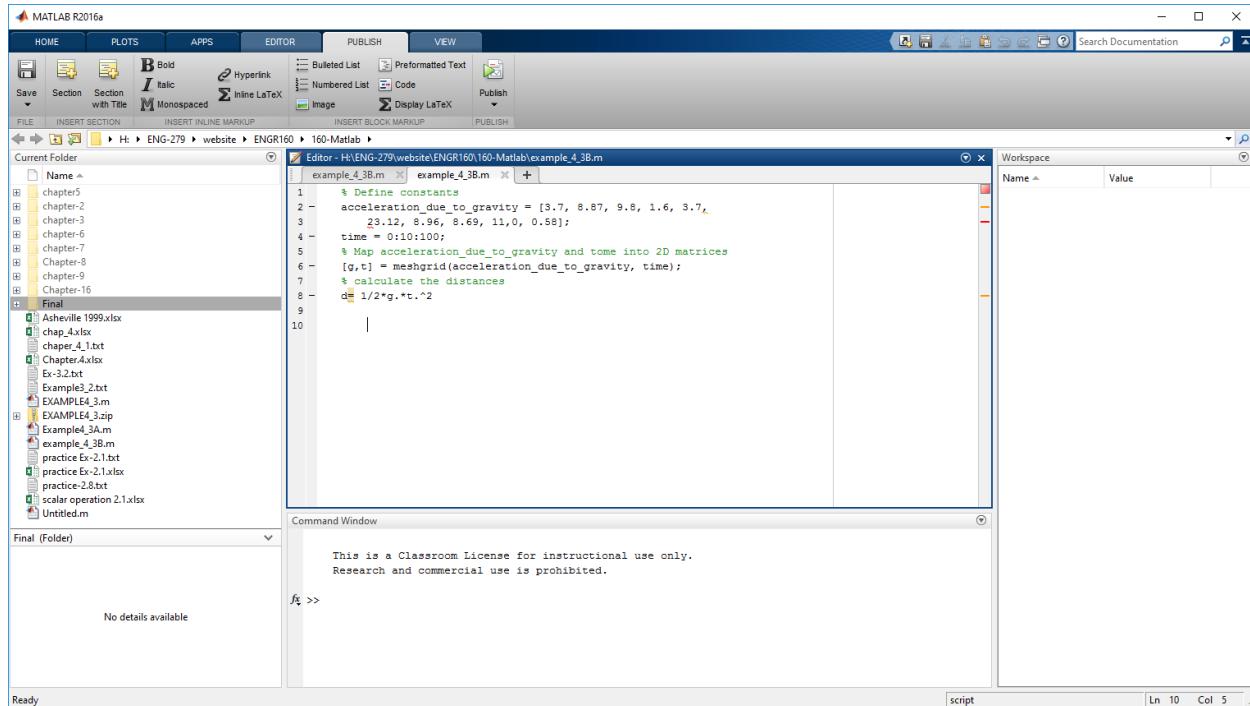
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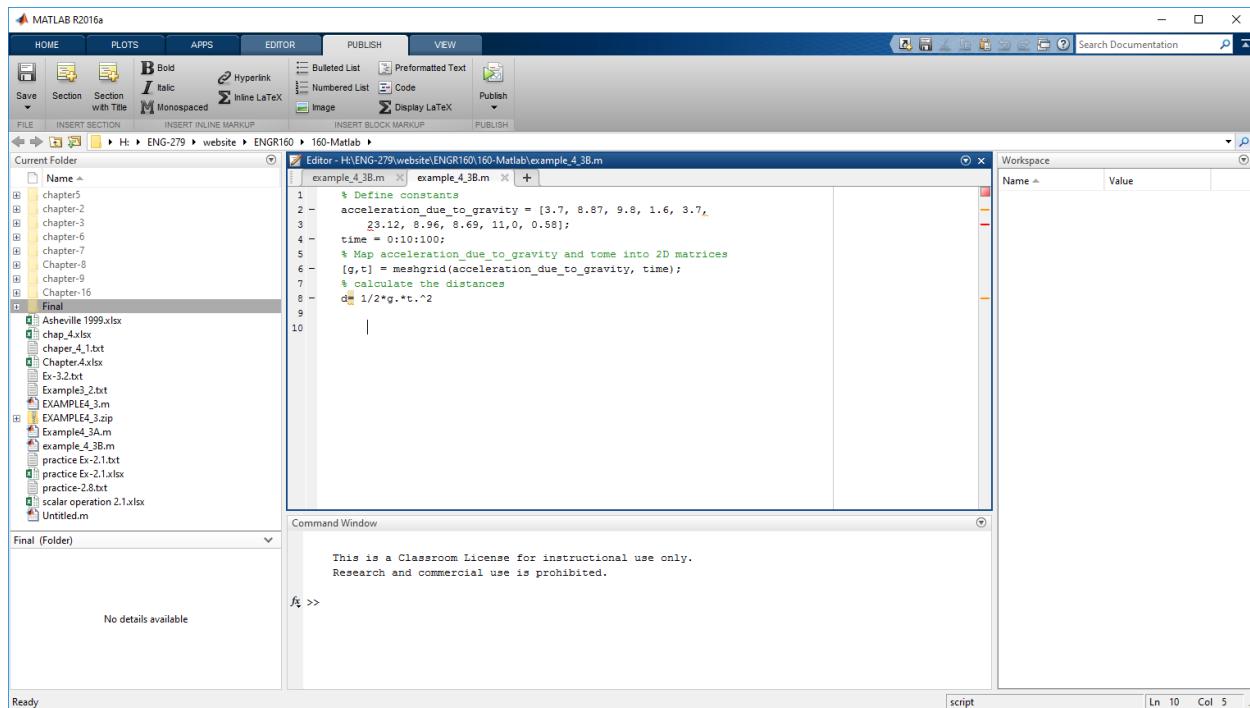
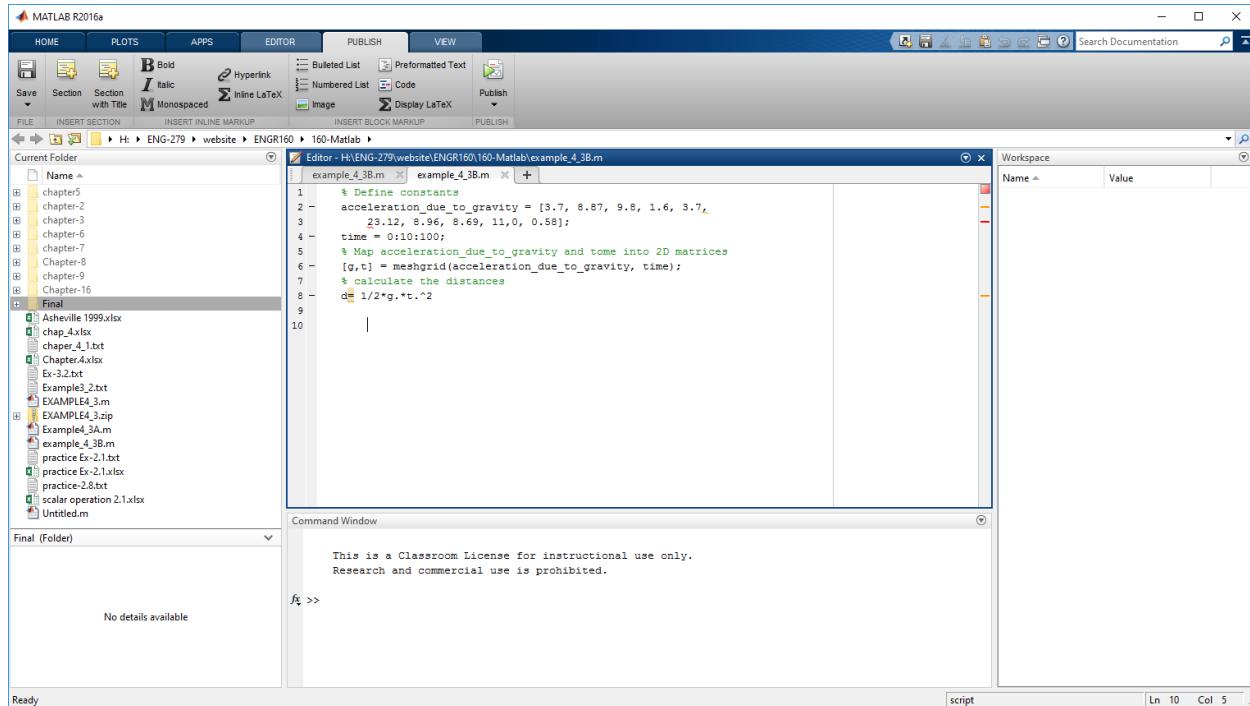
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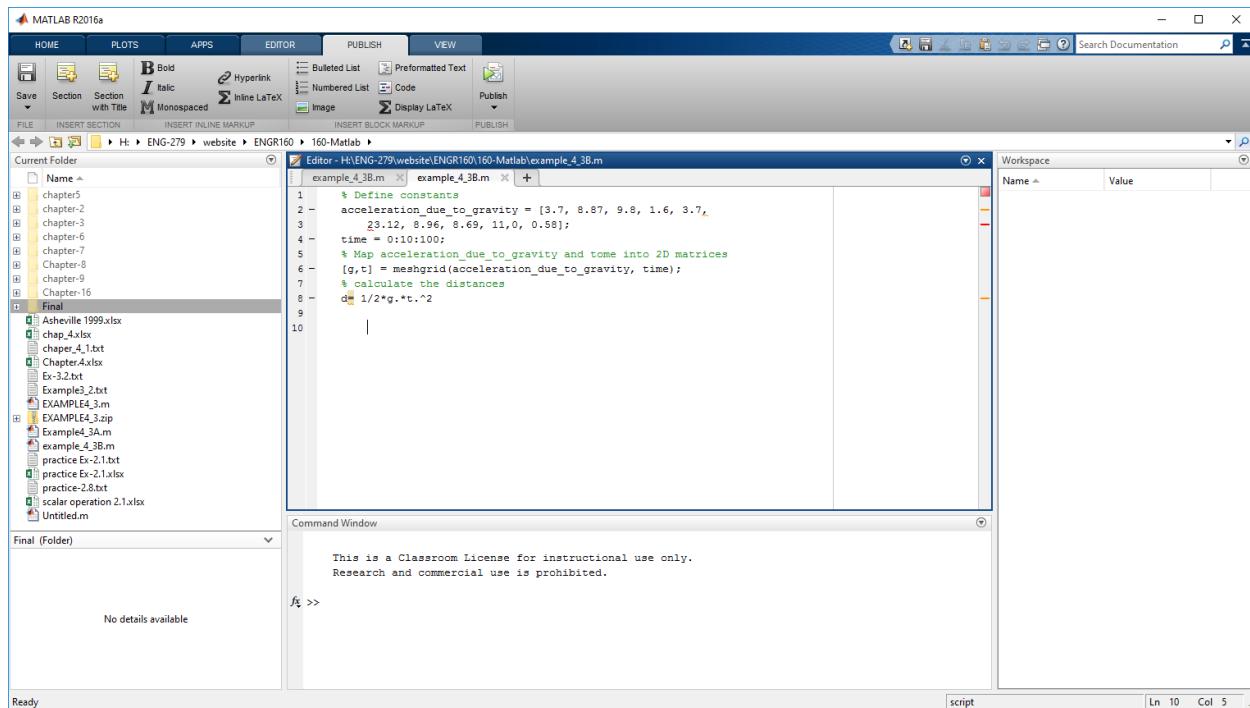
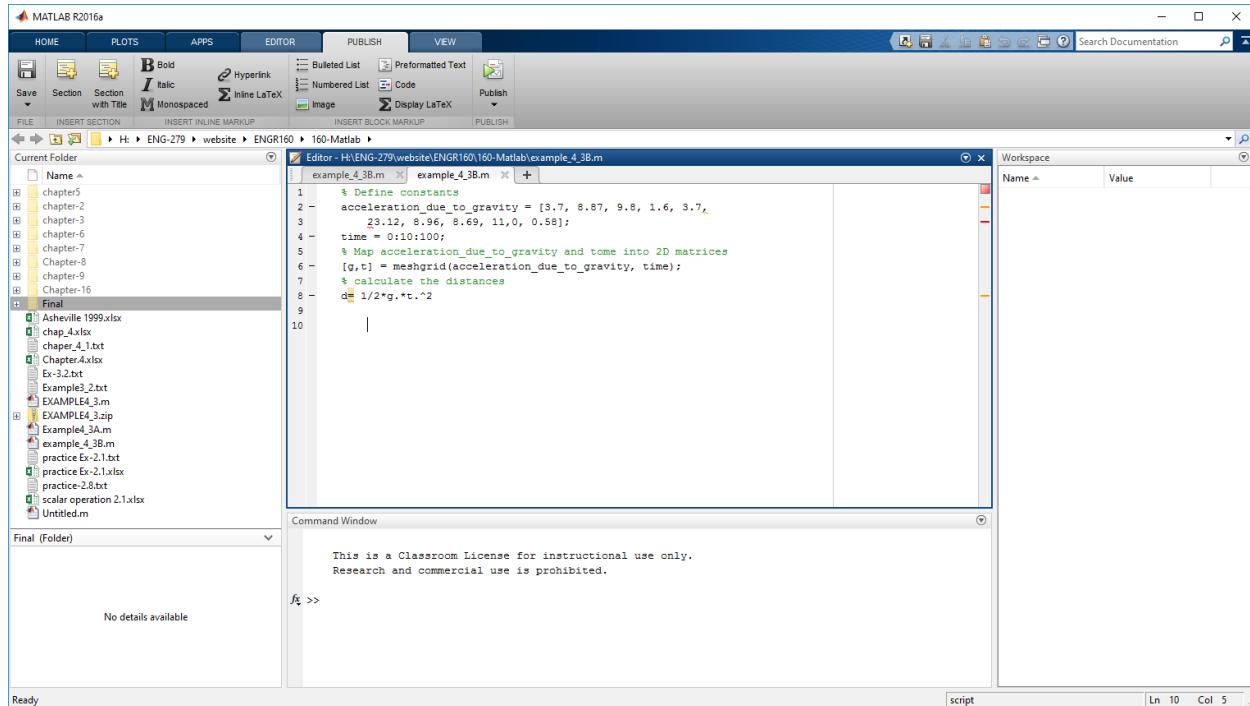
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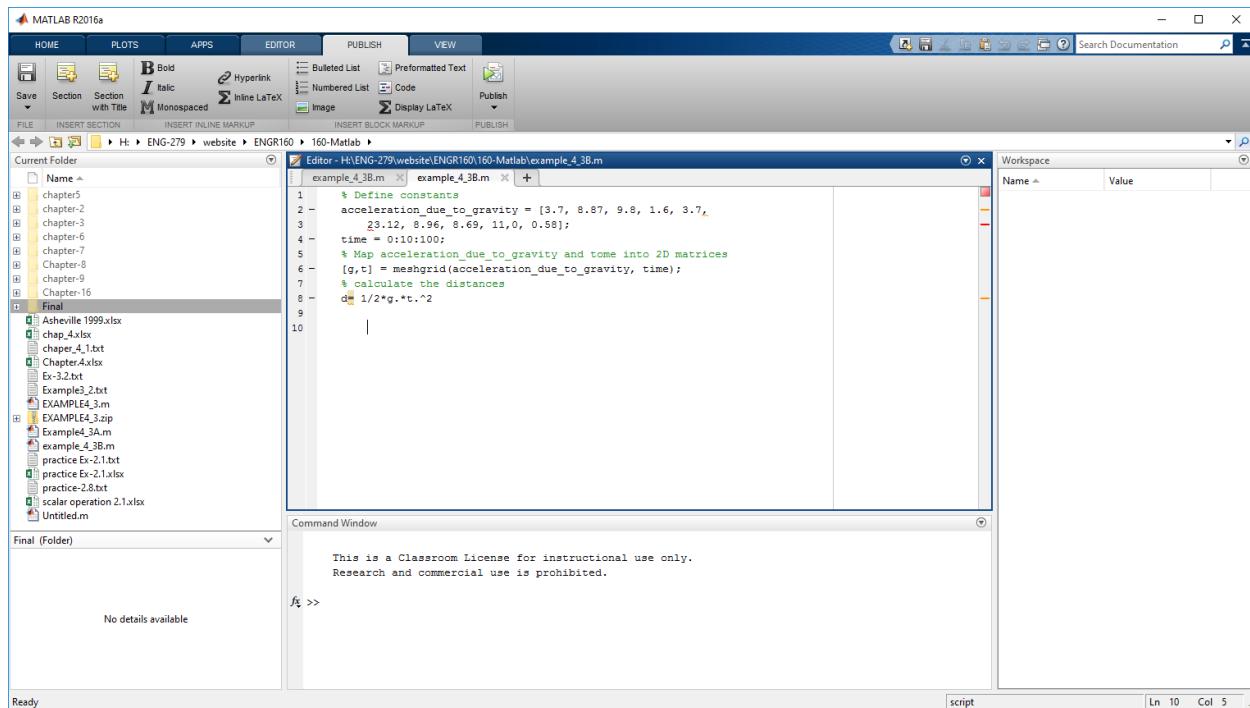
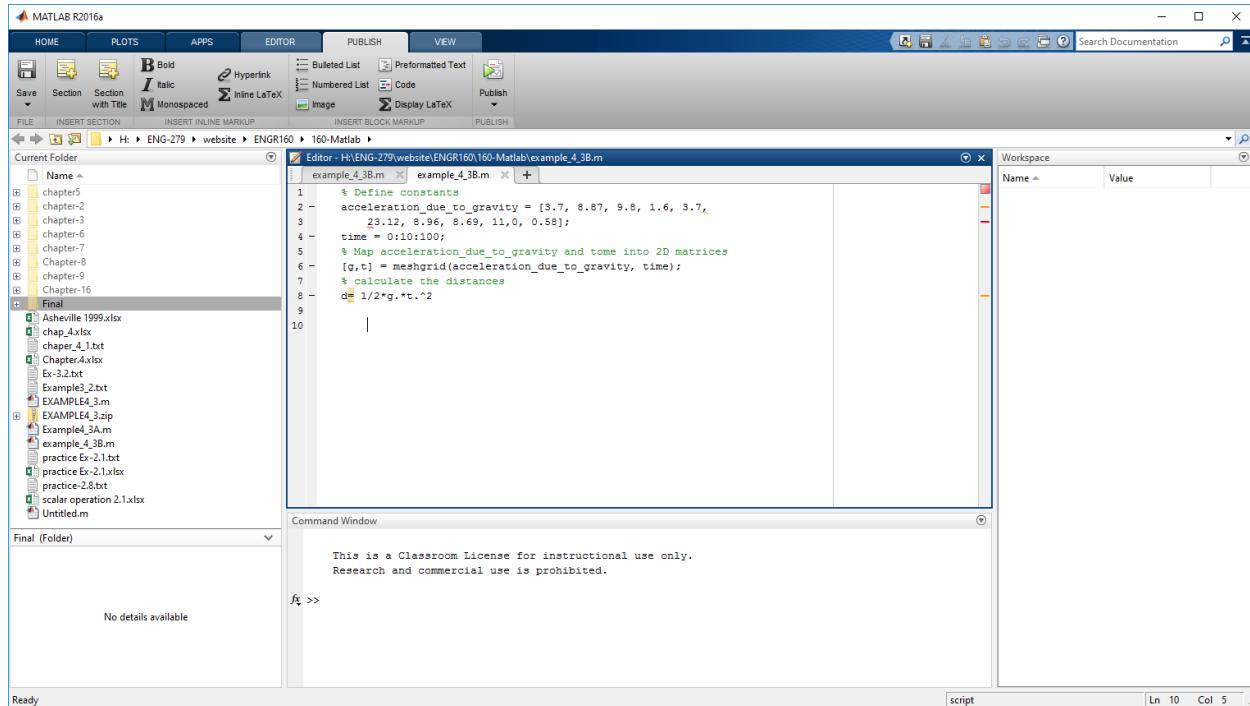


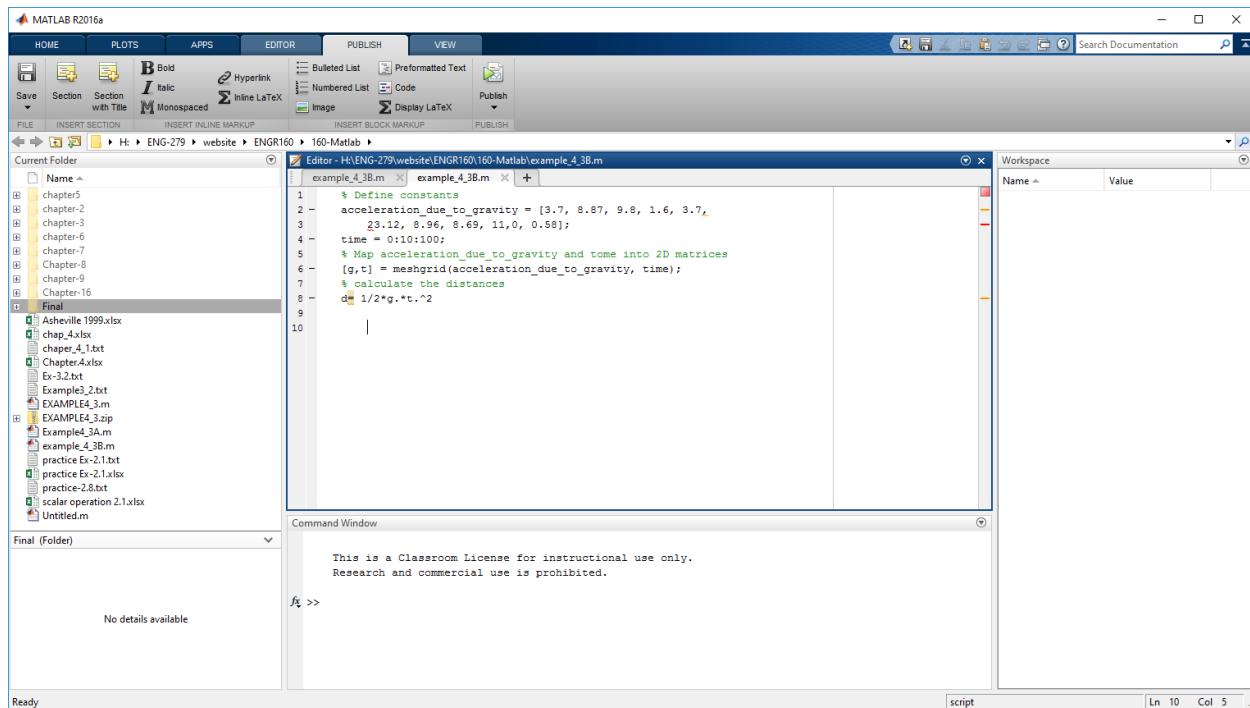
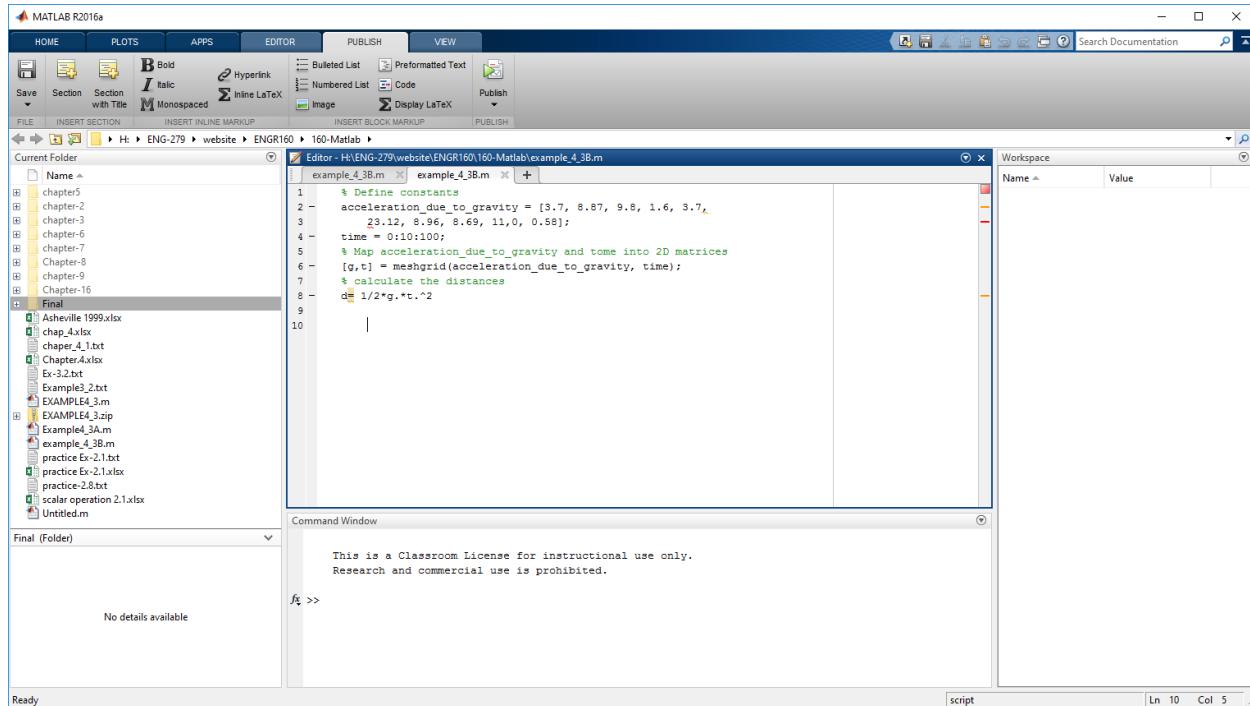


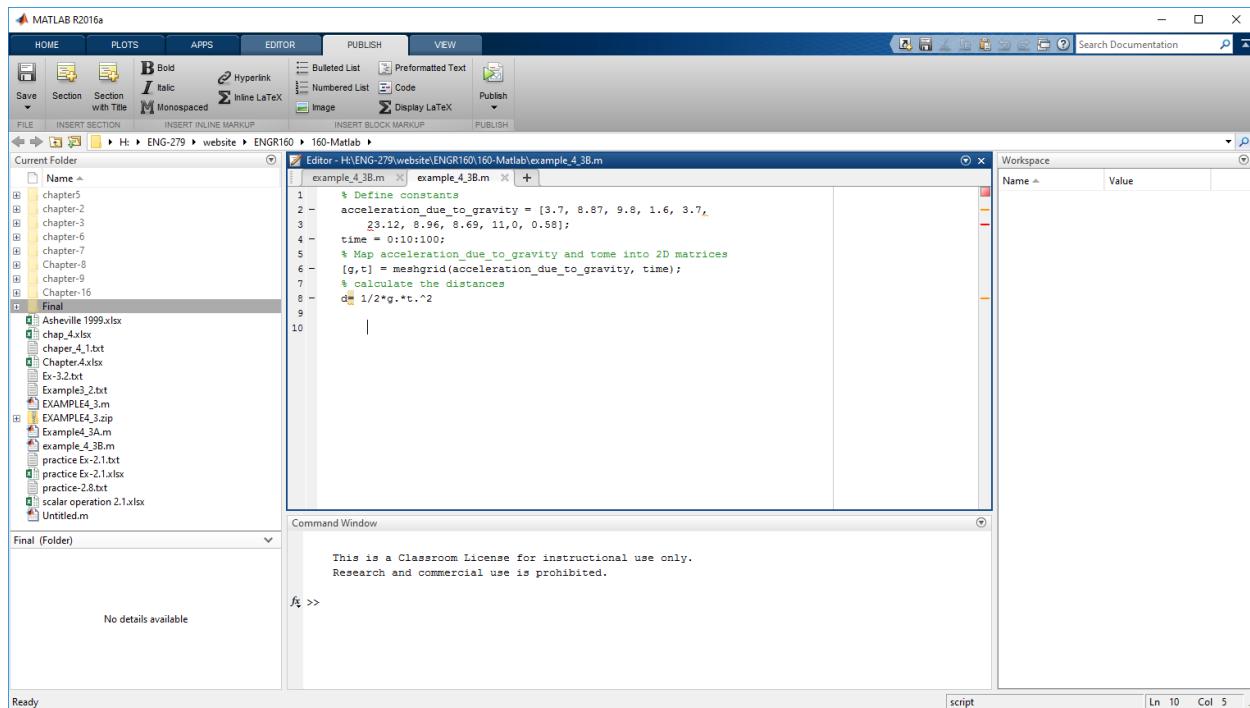
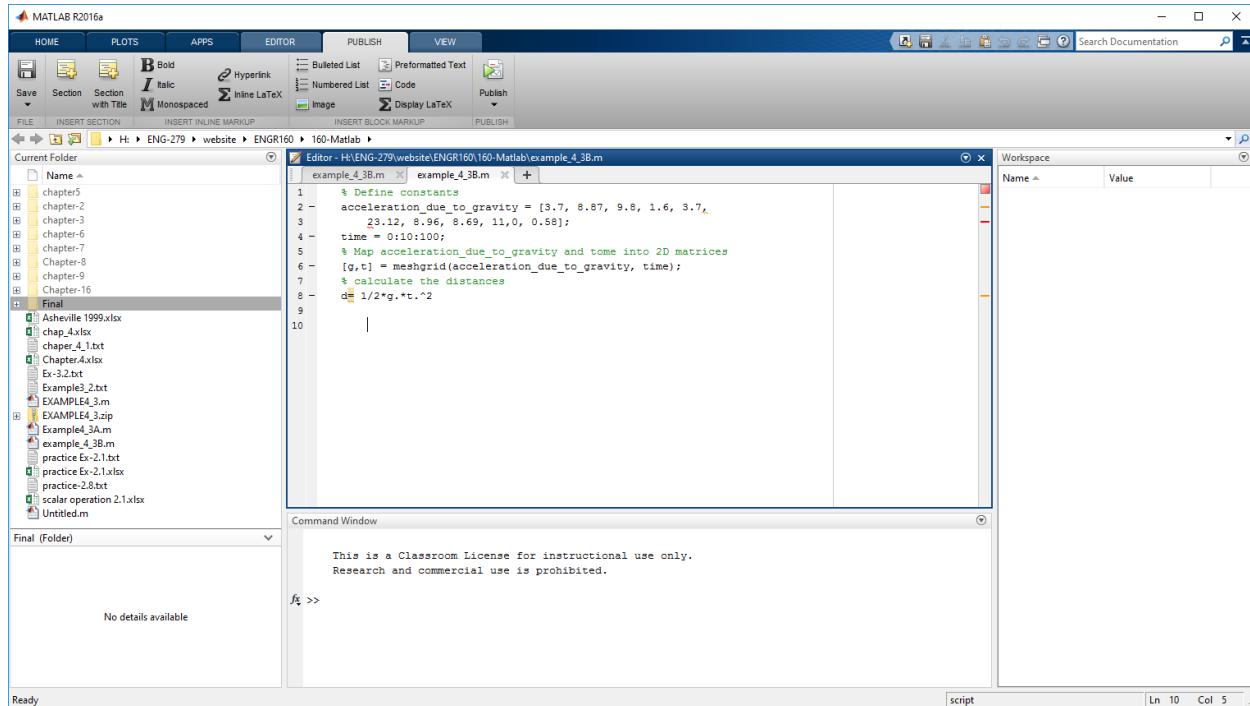


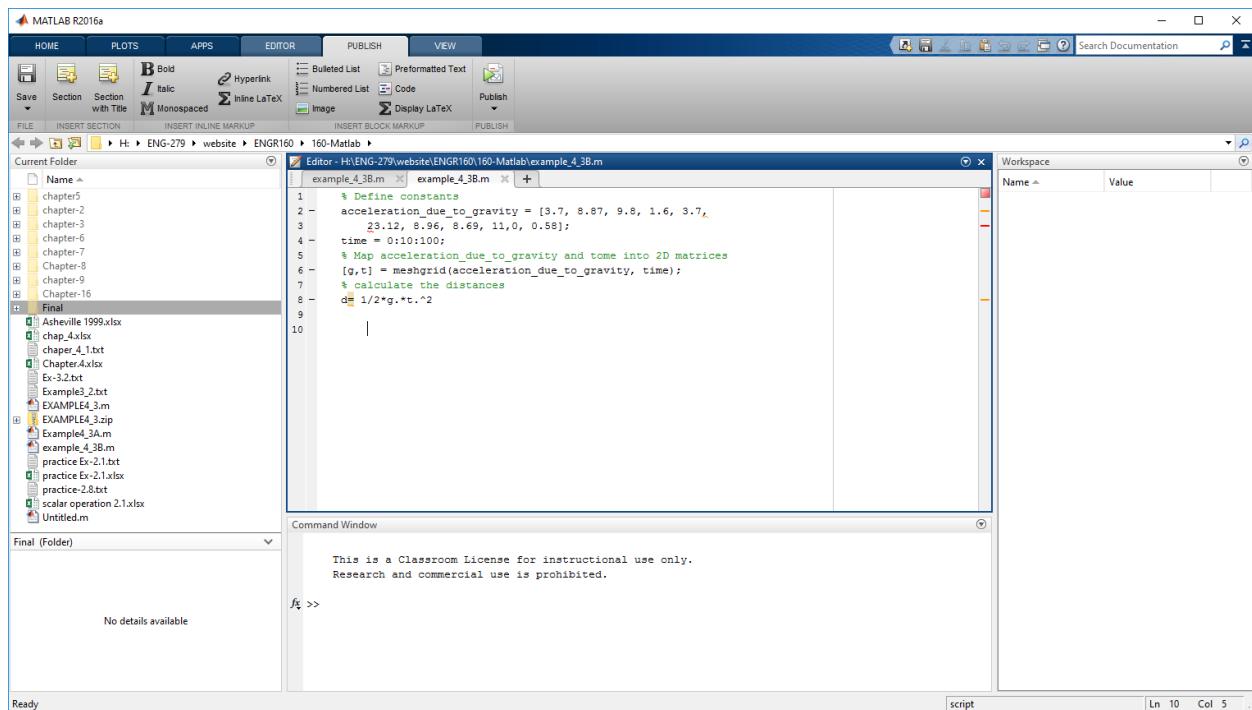


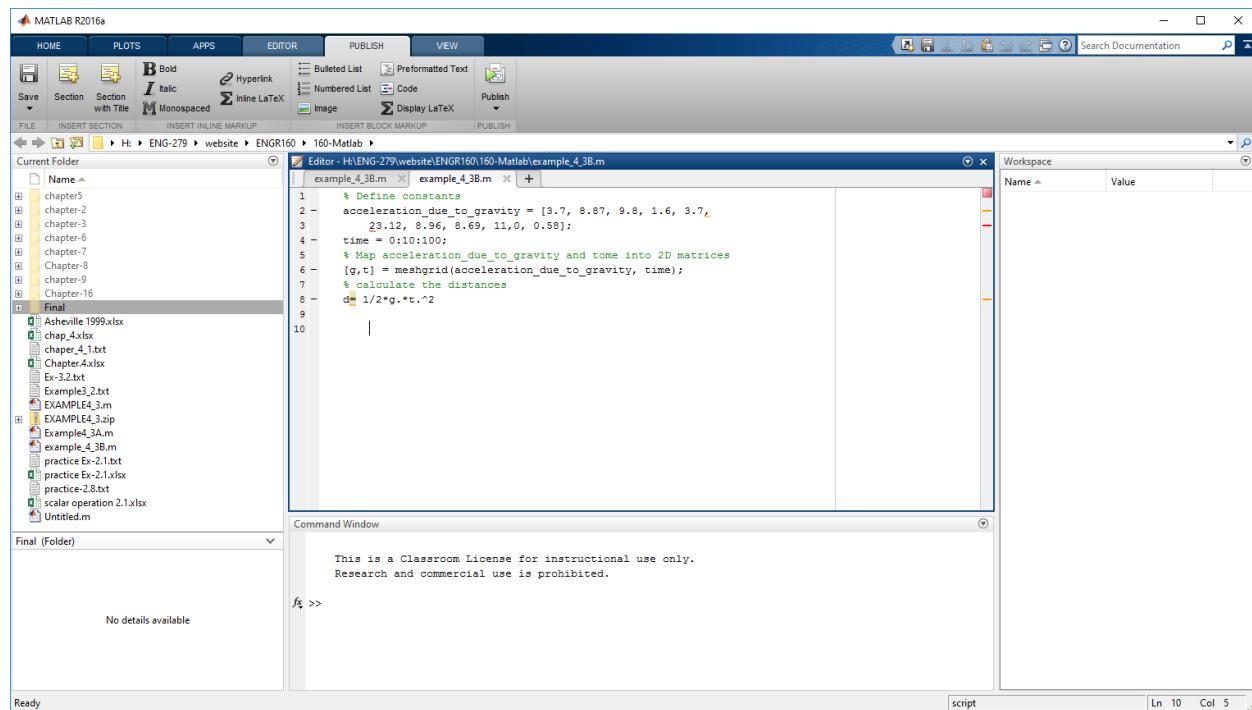
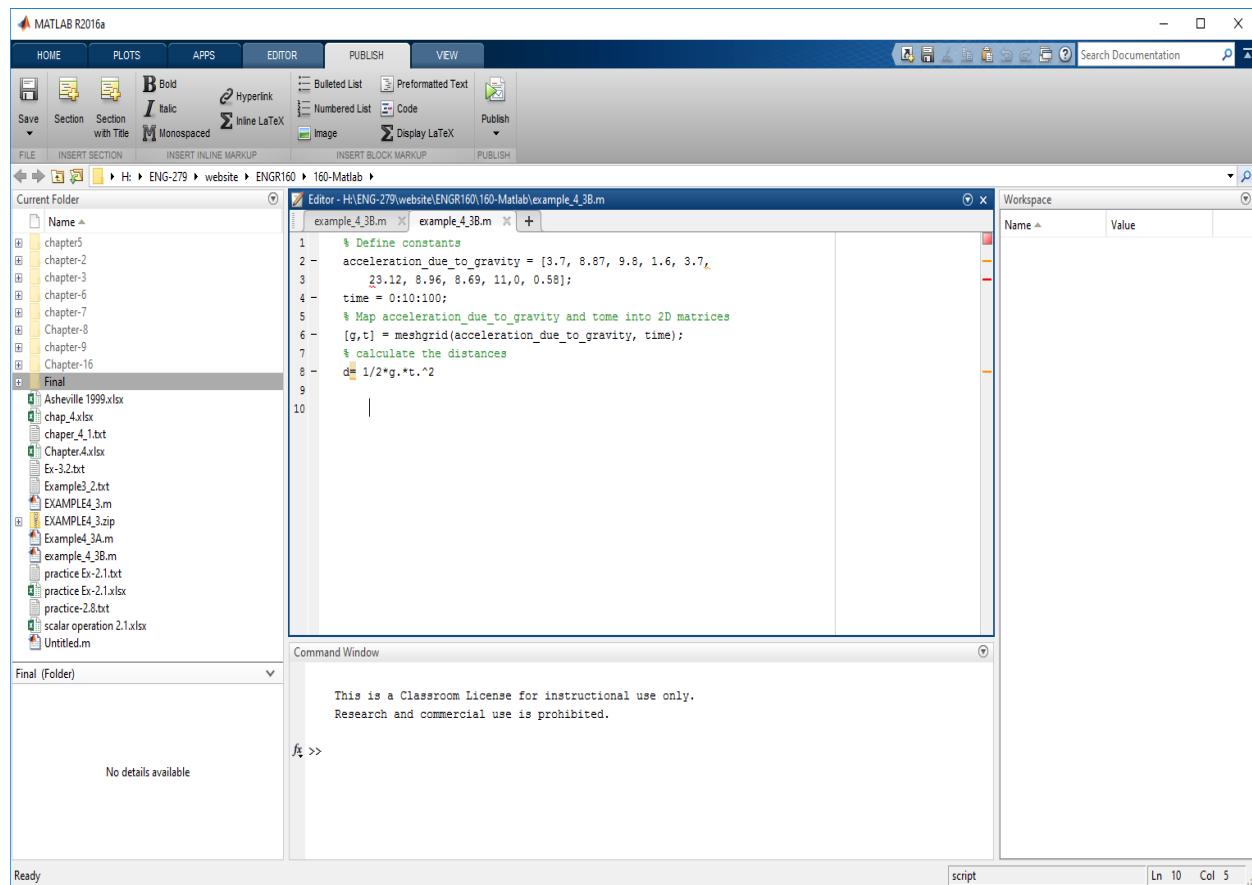


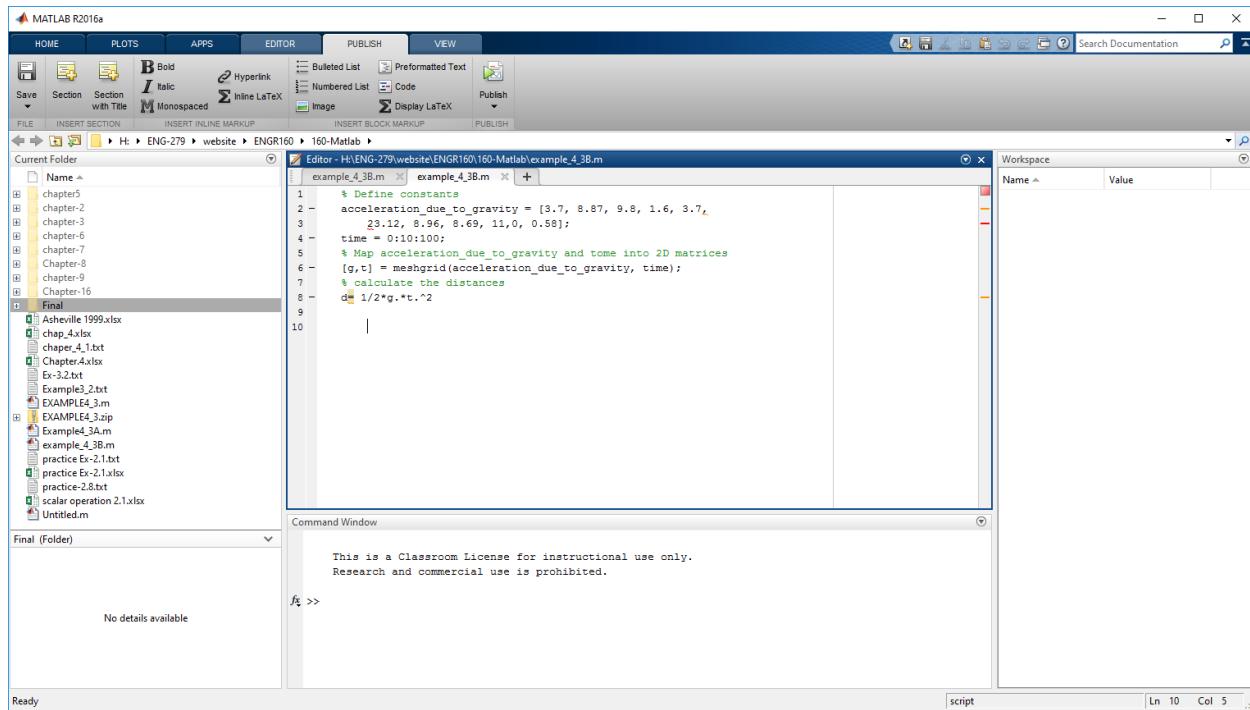
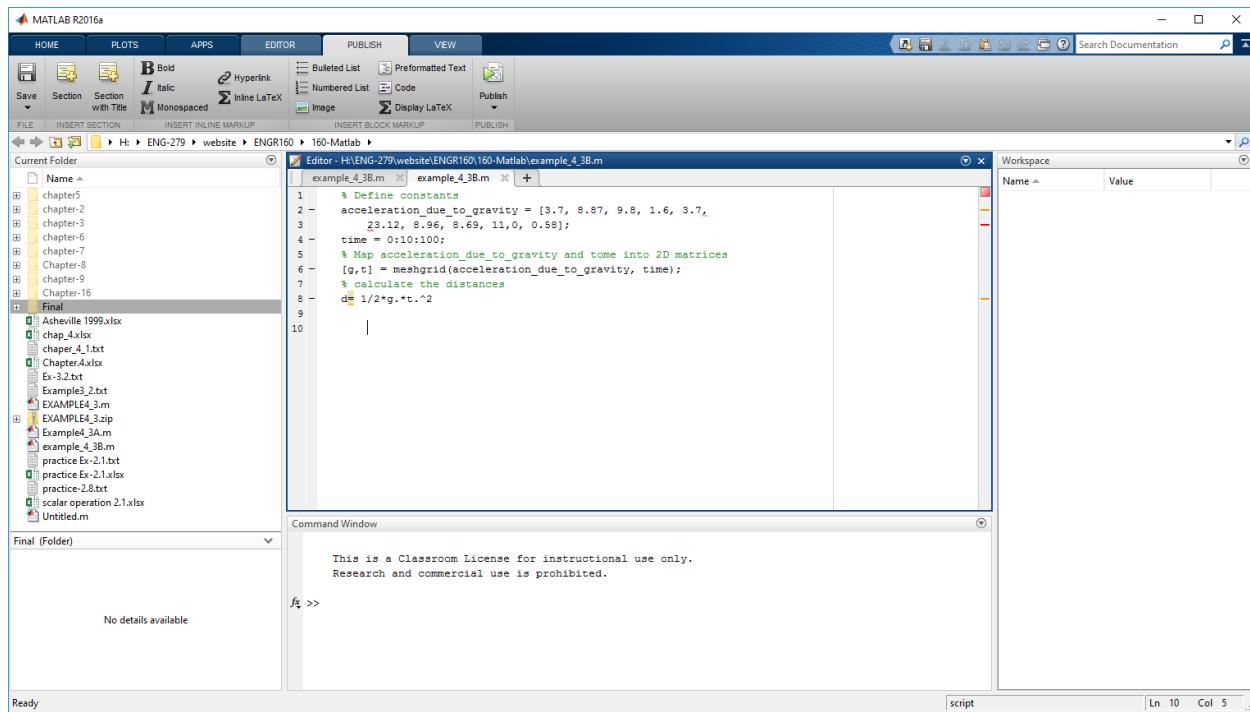


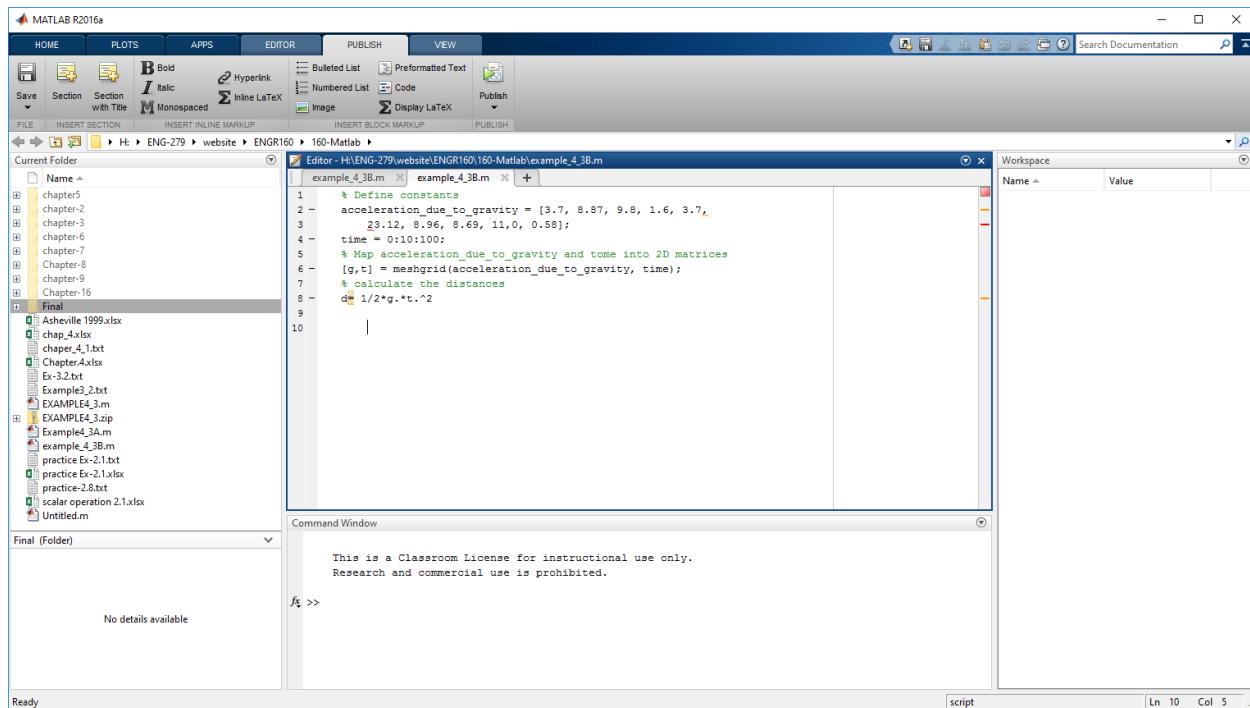
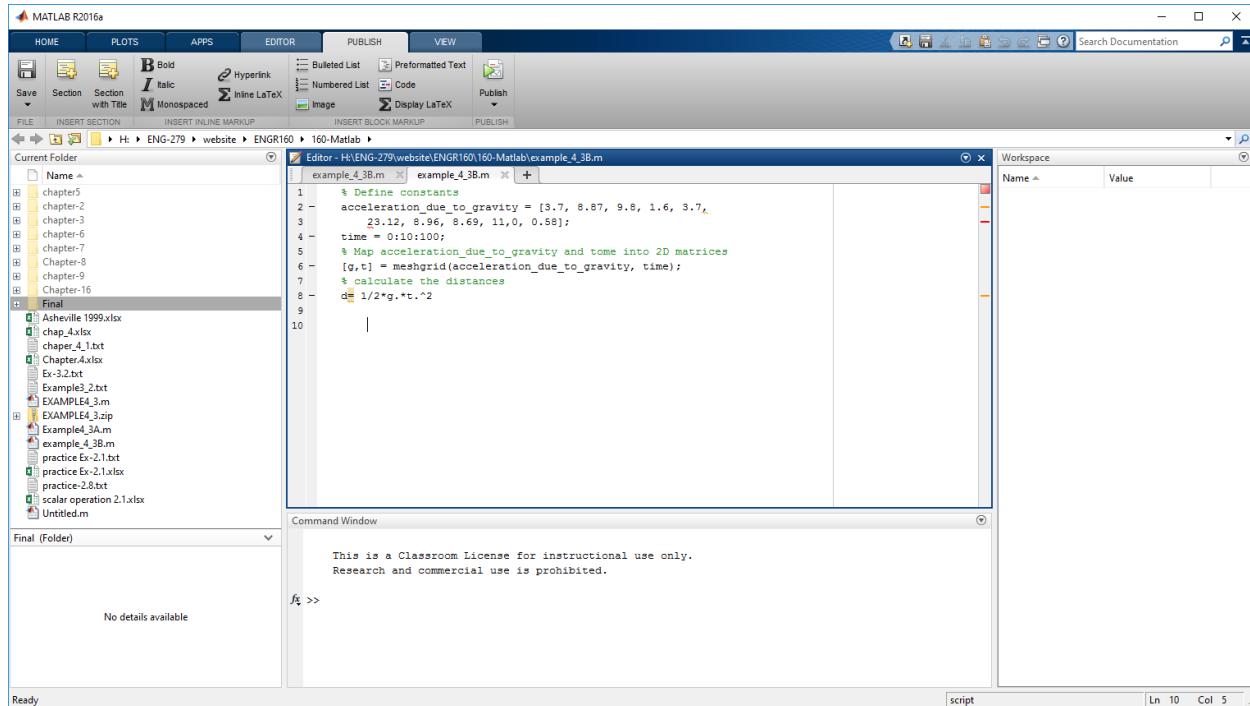


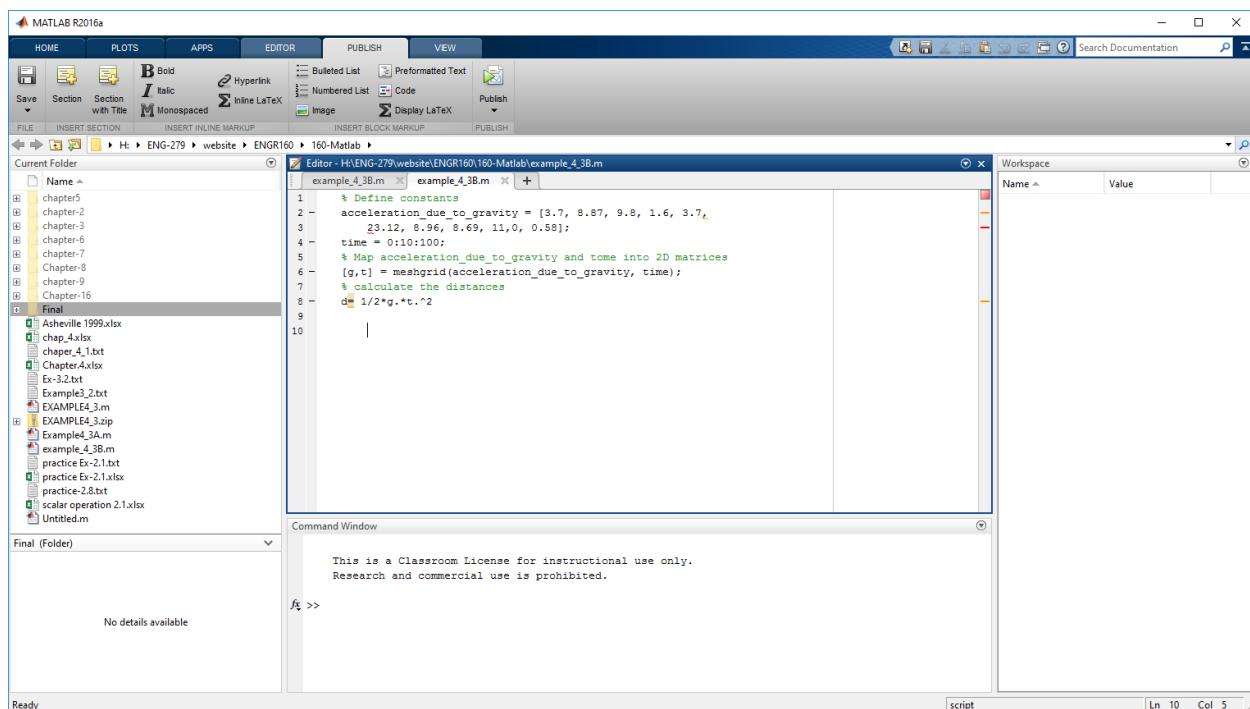
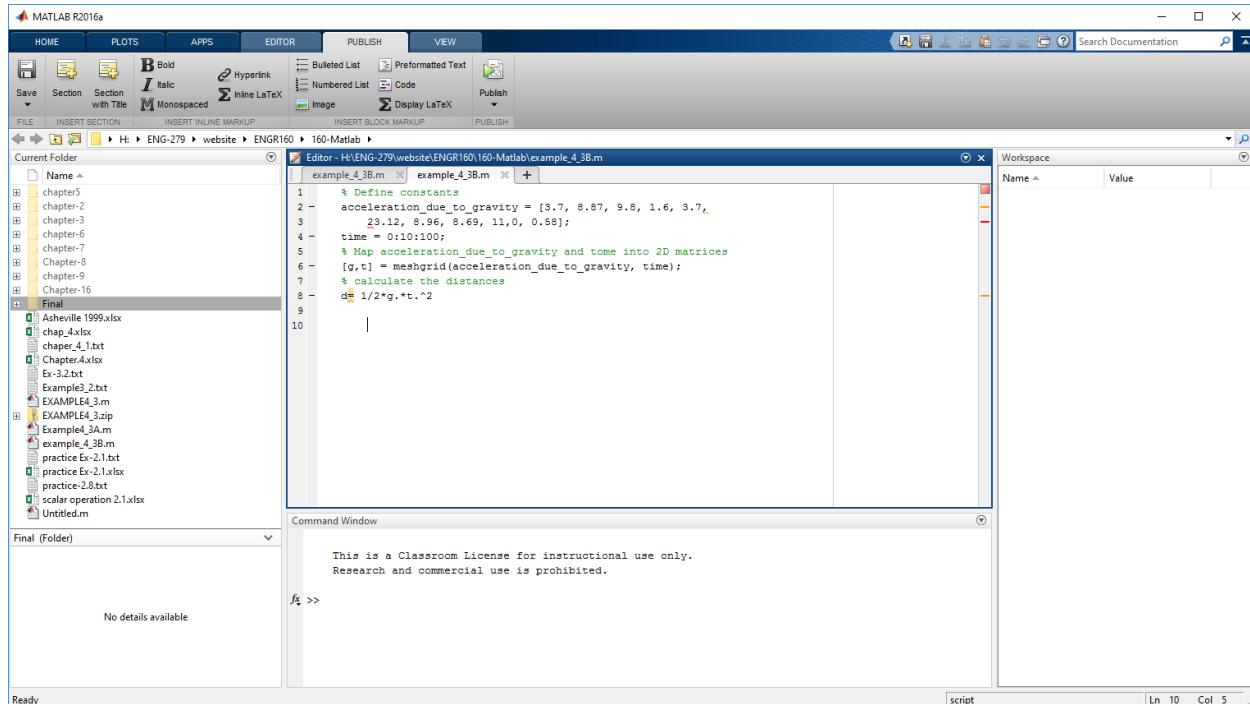


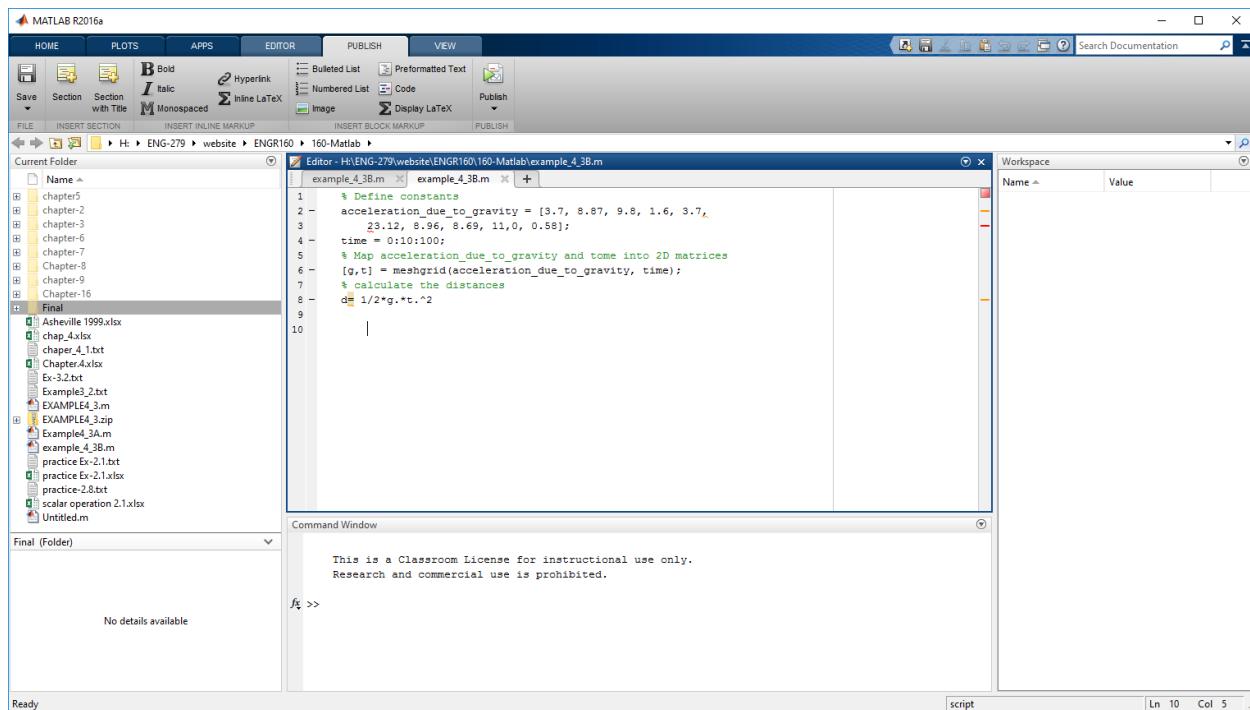


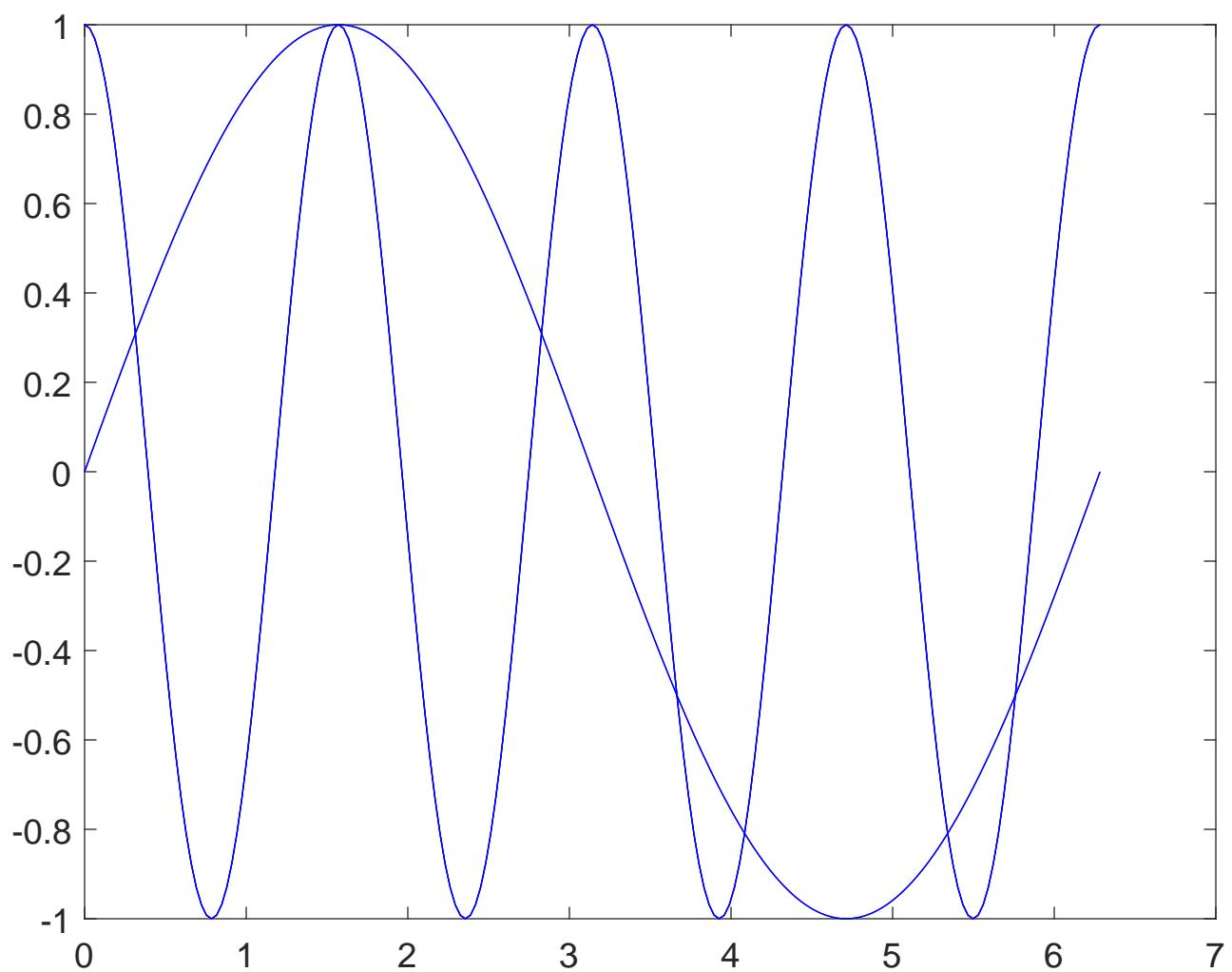


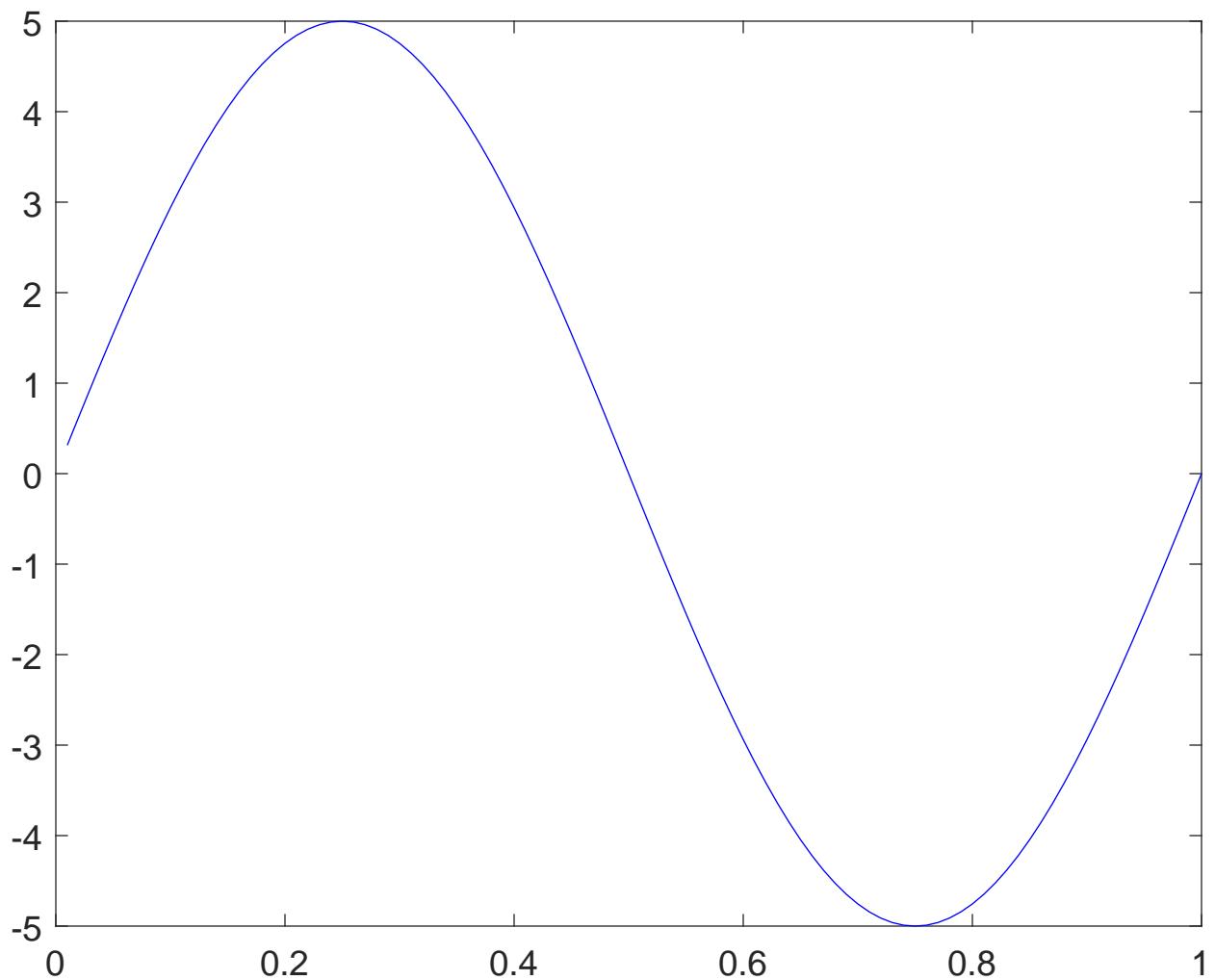












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5	38.97348	68.79681
6	69.08122	47.4038
7	39.37421	46.53032
8	61.59898	38.94372
9	48.49258	50.49836
10	48.95863	23.49855
11	58.66134	63.3227
12	28.65889	64.78429
13	68.41045	62.34314
14	8.620793	48.79369
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16	60.61115	52.54603
17	43.5759	49.69001
18	19.85663	60.60082
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20	80.67499	54.19453
21	57.84398	45.64713
22	29.69255	37.88662
23	46.62503	60.20074
24	9.212573	55.37717
25	55.49383	51.61465
26	2.284304	52.70628
27	47.89477	41.03448
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29	16.39584	46.60712
30	71.62926	51.10241
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35	20.57655	43.50286
36	38.17349	57.93399
37	22.77903	66.84437
38	33.44652	50.55428
39	66.04706	61.21723
40	40.80123	56.72067
41	55.97158	30.20112
42	47.81868	50.38131
43	39.15824	46.17173
44	52.88878	61.27751
45	37.05935	54.35655

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47	42.48212	28.59418
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62	51.60882	67.79808
63	50.38246	48.26216
64	58.72247	43.89504
65	33.74477	47.65
66	31.87319	43.17249
67	31.81629	57.62455
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77	61.98061	50.13451
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81	76.96061	37.70972
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103	42.39064	46.33073
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535	50.75136	49.88469
536	44.48316	44.78768
537	48.06557	56.24617
538	33.09027	45.57092
539	79.03938	56.5383
540	61.81214	38.82315
541	32.26405	42.0647
542	63.68321	56.42657
543	33.975	51.46142
544	60.6395	28.32659
545	26.51919	46.3597
546	96.59999	53.01274
547	29.31868	79.26642
548	61.80592	51.20192
549	23.80083	54.3676
550	48.54942	42.95321
551	51.27806	49.806
552	48.9279	49.15312
553	44.22185	68.06431
554	32.65397	46.05017
555	94.51937	42.26033
556	51.55997	40.13482
557	72.3548	52.28064
558	45.66611	41.41773
559	90.45893	49.3549
560	68.64727	52.64019
561	58.82028	44.29971
562	95.38066	55.05623

563	59.741	56.22849
564	20.19264	65.77056
565	50.68728	44.28689
566	49.67944	49.44101
567	49.89476	51.23452
568	82.83915	61.46535
569	29.12936	38.73243
570	64.71405	74.29035
571	69.54537	61.21979
572	64.95556	44.32431
573	45.04777	42.75483
574	62.40805	41.93796
575	-3.49377	67.9001
576	56.88369	42.40707
577	24.70232	52.7297
578	52.22283	50.57977
579	67.82911	37.25624
580	60.83897	48.39822
581	48.72468	45.80599
582	75.66742	49.38363
583	22.2051	55.32501
584	48.53243	47.95194
585	76.31503	50.53389
586	25.89971	19.05735
587	20.5454	54.11343
588	38.65862	63.38846
589	38.07041	37.47651
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592	33.72938	39.74045
593	18.21721	53.21108
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596	59.1871	54.47818
597	37.89857	63.11464
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601	52.38972	62.99441
602	70.61787	49.78988
603	51.68507	37.1869
604	34.67867	52.19967
605	52.67562	55.41128
606	81.37382	36.02931
607	75.5747	62.37967
608	54.44677	57.9706
609	47.51798	59.40786

610	67.23233	53.1485
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612	66.46921	51.83674
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614	58.15593	46.94257
615	85.53086	55.71827
616	51.59549	54.54152
617	58.42349	70.16245
618	61.99254	58.98228
619	69.89315	47.22872
620	39.20659	42.35805
621	74.99905	47.32014
622	79.50052	49.79021
623	65.95683	48.09575
624	71.40989	42.34316
625	85.48373	43.37943
626	74.55112	48.07447
627	83.77206	36.39763
628	69.31279	58.88769
629	84.03723	44.73804
630	34.22165	41.39903
631	14.16708	41.97273
632	43.84443	40.87088
633	38.5934	56.79542
634	45.56283	53.19745
635	85.521	67.71495
636	27.62816	47.99071
637	46.39553	54.92253
638	24.46059	49.21794
639	69.18296	75.23301
640	85.09352	36.90227
641	51.22106	61.64597
642	35.19444	50.50057
643	26.34682	49.01015
644	100.09	43.32615
645	23.03443	59.40298
646	70.06482	57.57474
647	37.75683	36.91608
648	38.96749	73.22503
649	60.06881	58.07332
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654	34.77512	44.90109
655	7.538196	54.9613
656	31.10427	44.15295

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662	34.34471	35.21793
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665	65.35683	33.23475
666	78.52301	56.6362
667	38.07233	45.69487
668	72.03717	71.50412
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702	72.7143	54.08164
703	78.92096	51.56028

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712	18.36501	50.42057
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722	31.17118	44.85417
723	20.0294	44.86174
724	60.59561	48.0373
725	28.13837	47.43794
726	28.21491	47.92591
727	46.47819	52.95843
728	73.89096	64.8501
729	58.43557	56.44196
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731	28.21455	43.77662
732	25.09286	55.03065
733	49.36622	59.95358
734	17.68703	62.03827
735	50.30136	57.71048
736	44.08085	51.96979
737	42.70358	67.76399
738	68.0761	52.21462
739	48.7199	47.91182
740	33.87688	42.5519
741	78.35248	46.82848
742	47.85534	47.72115
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744	69.76656	53.61169
745	24.4423	48.41291
746	61.79702	54.95355
747	67.85101	56.74659
748	48.70872	36.66318
749	23.25146	56.95751
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753	47.06679	61.54775
754	61.92948	55.37858
755	55.03272	35.73016
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757	48.71483	65.06158
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759	40.7975	51.77105
760	21.43441	60.22091
761	43.52608	26.46485
762	49.65392	36.5751
763	33.9843	40.98783
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765	51.53241	38.59468
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784	45.63077	55.65607
785	77.74038	38.93574
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787	42.98856	51.87669
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797	47.22368	48.94903

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813	57.57166	59.61998
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818	80.35393	51.21427
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824	75.82924	72.53875
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827	57.28539	56.32683
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839	31.87327	39.32856
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868	44.47823	60.16982
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870	34.22324	47.87997
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881	47.28116	30.55789
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887	70.38378	35.66155
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889	77.91512	45.04093
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891	57.73727	33.77427

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