

Diff Eqns: Homework Page 2 (7th edition/blue book)

After Class on:	Section:	Problems	Due Date
2/11/2020	4.1	Set A: #19-29 odd, 31,33,35 Set B: #16,18,26,31,40	Thursday, 2/13/2020
	4.3	Start on Set A: #1,3,9,11,15,17,21,29,39 Start on Set B: #4,10,22,32	Thursday, 2/20/2020

Hints & Notes: 4.1 #26: Don't verify by solving the DE using techniques from later sections of the text. Rather verify by showing that the set meets the conditions of the definition of "fundamental set."

4.1 #31: Again, don't verify by solving the DE. Rather, identify the part of the solution that should be the fundamental set of solutions to the LH, then verify that they are. Then identify the part of the solution that should be a particular soln to the NH, and then verify that it is.

4.3: You should be able to do all of the problems from #1-39, but at the least you should practice with those that are assigned above.

2/13/2020	4.3	Finish the above problems	
	4.5	Start on Set A: #1,5,13,15,19,25,35,39,45,51,53 Start on Set B: #2,12,16,20,38,44	Thursday, 2/20/2020

2/18/2020	4.5	Finish the above problems	
	4.6	Start on Set A: #1,3,5,9,11,17,21,25 Start on Set B: #2,4,10	Thursday, 2/20/2020

Hints & Notes: 4.6: You should be able to do all of the problems from #1-22, but at the least you should practice with those that are assigned above.

After Class on:	Section:	Problems	Due Date
2/20/2020	4.6	Finish the above problems	
	5.1	Start on Set A: #3,4,9,11,21,29,33,37 Set B: #6,23,26,30*	Thursday, 2/27/2020

Hints & Notes: A general note for those of us who have not had much (any?) physics training. The weight of an object and the mass of an object are not the same thing. The weight w is found by multiplying the mass m by the gravitational constant g of the appropriate scenario. i.e. $w=mg$. So, for example, if you are near the surface of the Earth and have an object with mass measured in pounds, you multiply by $g=32$ to convert to a weight in pounds. (Is that confusing, or what!!!) If your object has mass measured in Newtons (a metric system unit), then you multiply by $g=9.8$ to convert to a weight in kilograms. When you do your homework, pay good attention to whether they are giving you the weight or the mass.

5.1 #6: The first sentence gives you the info to find the spring constant k . A “weight” of 400 Newtons causes a displacement of 2 meters, so what must k be? After you find k , the first sentence is not needed for the rest of the problem.

5.1 #23 & #26: You may use the Excel worksheet from the class website to help you on these.

5.1 #30: A slug is an English unit of mass, to distinguish a pound of mass from a pound of force (or weight). SET UP THE DIFFERENTIAL EQUATION, BUT DO NOT SOLVE IT.

2/25/2020 Review for Exam 2

Thursday, 2/27/2020: Exam 2: Sections 4.1,3,5,6, & 5.1

Spring Break!!!! -- Spring Break!!!! -- Spring Break!!!! -- Spring Break!!!! -- Spring Break!!!!
