

	type: colab or homework	colab or handwritten	similar exercise		
ex.1.1.2	handwritten	ex.1.1.1	ex.1.1.1 PDF solution ex.1.1.1 colab helper	<a href="http://math.ucdenver.edu/~langou/4650/1.1/exercise_ex_1_1_01_a2c_sauer3/exercise_ex_1_1_01_a2c_sauer3_sol_langou.pdf">http://math.ucdenver.edu/~langou/4650/1.1/exercise_ex_1_1_01_a2c_sauer3/exercise_ex_1_1_01_a2c_sauer3_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/1VJ3_rGh9d07bndBNkzysv7xzU7U_35LN">https://colab.research.google.com/drive/1VJ3_rGh9d07bndBNkzysv7xzU7U_35LN</a>	
ex.1.1.4	handwritten	ex.1.1.3	ex.1.1.3 PDF solution ex.1.1.3 colab helper	<a href="http://math.ucdenver.edu/~langou/4650/1.1/exercise_ex_1_1_03_a2c_sauer3/exercise_ex_1_1_03_a2c_sauer3_sol_langou.pdf">http://math.ucdenver.edu/~langou/4650/1.1/exercise_ex_1_1_03_a2c_sauer3/exercise_ex_1_1_03_a2c_sauer3_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/19pmlPmjKy23ryyoVU5c0K3zeZdgm96pl">https://colab.research.google.com/drive/19pmlPmjKy23ryyoVU5c0K3zeZdgm96pl</a>	
ex.1.1.8	handwritten	ex.1.1.7	ex.1.1.7 PDF solution ex.1.1.7 colab helper	<a href="http://math.ucdenver.edu/~langou/4650/1.1/exercise_ex_1_1_07_a2e_oer_langou/exercise_ex_1_1_07_a2e_oer_langou_sol_langou.pdf">http://math.ucdenver.edu/~langou/4650/1.1/exercise_ex_1_1_07_a2e_oer_langou/exercise_ex_1_1_07_a2e_oer_langou_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/1NdHyu9rQKNS44TM-G5gNn2SWsH84CP90">https://colab.research.google.com/drive/1NdHyu9rQKNS44TM-G5gNn2SWsH84CP90</a>	
cp.1.1.2	colab	cp.1.1.1	cp.1.1.1 colab solution cp.1.1.1 PDF helper	<a href="https://colab.research.google.com/drive/10iYN2gfKaQoFF8Q4RDa3Y7569rp0Yrak">https://colab.research.google.com/drive/10iYN2gfKaQoFF8Q4RDa3Y7569rp0Yrak</a> <a href="http://math.ucdenver.edu/~langou/4650/1.1/exercise_cp_1_1_01_a2c_sauer3/exercise_cp_1_1_01_a2c_sauer3_sol_langou.pdf">http://math.ucdenver.edu/~langou/4650/1.1/exercise_cp_1_1_01_a2c_sauer3/exercise_cp_1_1_01_a2c_sauer3_sol_langou.pdf</a>	
ex.1.2.8	handwritten	ex.1.2.7	ex.1.2.7 PDF solution	<a href="https://langou.github.io/4650/1.2/exercise_ex_1_2_07_a2c_sauer3/exercise_ex_1_2_07_a2c_sauer3_sol_langou.pdf">https://langou.github.io/4650/1.2/exercise_ex_1_2_07_a2c_sauer3/exercise_ex_1_2_07_a2c_sauer3_sol_langou.pdf</a>	
ex.1.2.14	handwritten	ex.1.2.15	ex.1.2.15 PDF solution	<a href="https://langou.github.io/4650/1.2/exercise_ex_1_2_15_a2c_sauer3/exercise_ex_1_2_15_a2c_sauer3_sol_langou.pdf">https://langou.github.io/4650/1.2/exercise_ex_1_2_15_a2c_sauer3/exercise_ex_1_2_15_a2c_sauer3_sol_langou.pdf</a>	
cp.1.2.4	handwritten	cp.1.2.3	cp.1.2.3 colab solution cp.1.2.3 PDF solution	<a href="https://colab.research.google.com/drive/1Ze9NgNgovpc89Xr3Azta-y-H_l4BArSM?usp=sharing">https://colab.research.google.com/drive/1Ze9NgNgovpc89Xr3Azta-y-H_l4BArSM?usp=sharing</a> <a href="https://langou.github.io/4650/1.2/exercise_cp_1_2_03_a2b_sauer3/exercise_cp_1_2_03_a2b_sauer3_sol_langou.pdf">https://langou.github.io/4650/1.2/exercise_cp_1_2_03_a2b_sauer3/exercise_cp_1_2_03_a2b_sauer3_sol_langou.pdf</a>	
ex.1.3.8	handwritten	example.1.10	( see Sauer's book )	<a href="https://bookshelf.vitalsource.com/#/books/9780134697376/pageid/67">https://bookshelf.vitalsource.com/#/books/9780134697376/pageid/67</a>	
cp.1.3.2	colab	cp.1.3.1	( see Sauer's answer ) cp.1.3.2 pdf getting started	<a href="https://media.pearsoncmg.com/aw/aw_sauer_num_analysis_3/solutions/sol_1_3.html">https://media.pearsoncmg.com/aw/aw_sauer_num_analysis_3/solutions/sol_1_3.html</a> <a href="https://langou.github.io/4650/1.3/exercise_cp_1_3_02_sauer3/exercise_cp_1_3_02_sauer3_getting_started.pdf">https://langou.github.io/4650/1.3/exercise_cp_1_3_02_sauer3/exercise_cp_1_3_02_sauer3_getting_started.pdf</a>	
ex.1.4.2	handwritten	ex.1.4.1	( see Sauer's answer )	<a href="https://media.pearsoncmg.com/aw/aw_sauer_num_analysis_3/solutions/sol_1_4.html">https://media.pearsoncmg.com/aw/aw_sauer_num_analysis_3/solutions/sol_1_4.html</a>	
ex.1.4.4	handwritten	ex.1.4.3	( see Sauer's answer )	<a href="https://media.pearsoncmg.com/aw/aw_sauer_num_analysis_3/solutions/sol_1_4.html">https://media.pearsoncmg.com/aw/aw_sauer_num_analysis_3/solutions/sol_1_4.html</a>	
cp.1.4.2	colab	cp.1.4.1	cp.1.4.1 colab solution	<a href="https://colab.research.google.com/drive/1Y9ASj76NH8tbOy5xOZlVtBxoeGMZw1f">https://colab.research.google.com/drive/1Y9ASj76NH8tbOy5xOZlVtBxoeGMZw1f</a> <a href="https://langou.github.io/4650/1.4/exercise_cp_1_4_01_a2c_sauer3/exercise_cp_1_4_01_a2c_sauer3_sol_langou.pdf">https://langou.github.io/4650/1.4/exercise_cp_1_4_01_a2c_sauer3/exercise_cp_1_4_01_a2c_sauer3_sol_langou.pdf</a>	
cp.1.4.8	colab	cp.1.4.7	cp.1.4.7 colab solution cp.1.4.7 PDF solution cp.1.4.8 colab getting started cp.1.4.8 PDF getting started, plot	<a href="https://colab.research.google.com/drive/1-akiROUL9xvwEIYW5sZDOQOx8mhapqil">https://colab.research.google.com/drive/1-akiROUL9xvwEIYW5sZDOQOx8mhapqil</a> <a href="https://langou.github.io/4650/1.4/exercise_cp_1_4_07_sauer3/exercise_cp_1_4_07_sauer3_sol_langou.pdf">https://langou.github.io/4650/1.4/exercise_cp_1_4_07_sauer3/exercise_cp_1_4_07_sauer3_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/1ZxFwe53XlgAHlaokGLVzykP2JmXOZlD9">https://colab.research.google.com/drive/1ZxFwe53XlgAHlaokGLVzykP2JmXOZlD9</a> <a href="https://langou.github.io/4650/1.4/exercise_cp_1_4_08_sauer3/exercise_cp_1_4_08_sauer3_plot1.pdf">https://langou.github.io/4650/1.4/exercise_cp_1_4_08_sauer3/exercise_cp_1_4_08_sauer3_plot1.pdf</a>	
cp.1.5.1	colab	cp.1.5.1.a	cp.1.5.1.a colab solution	<a href="https://colab.research.google.com/drive/15UDMylJ7GKKZSDJlJdsZUxbBvDYF2ciG">https://colab.research.google.com/drive/15UDMylJ7GKKZSDJlJdsZUxbBvDYF2ciG</a>	
cp.1.5.2	colab	cp.1.5.2.a	cp.1.5.2.a colab solution	<a href="https://colab.research.google.com/drive/1jFcHbKYRHbWr8Jc1CI-OhaSH25dHQTZu">https://colab.research.google.com/drive/1jFcHbKYRHbWr8Jc1CI-OhaSH25dHQTZu</a>	
cp.1.5.3	colab	cp.1.5.3.a	cp.1.5.3.a colab solution	<a href="https://colab.research.google.com/drive/1ghqOaqXrL3TIs46cOTE2FZ8PTt3itU7">https://colab.research.google.com/drive/1ghqOaqXrL3TIs46cOTE2FZ8PTt3itU7</a>	