homework	type: colab or handwritten	similar exercise		
ex.1.1.2	handwritten		ex.1.1.1 PDF solution ex.1.1.1 colab helper	https://langou.github.io/4650/1.1/exercise ex 1 1 01 a2c sauer3/exercise ex 1 1 01 a2c sauer3 sol langou.pdf https://colab.research.google.com/drive/1VJ3 rGh9d07bndBNkzysv7xzU7U 35LN
ex.1.1.4	handwritten		ex.1.1.3 PDF solution ex.1.1.3 colab helper	https://langou.github.io/4650/1.1/exercise_ex_1_1_03_a2csauer3/exercise_ex_1_1_03_a2csauer3sol_langou.pdf https://colab.research.google.com/drive/19pmlPmjKy23ryyoVU5c0K3zeZdgm96pl
ex.1.1.8	handwritten		ex.1.1.7 PDF solution ex.1.1.7 colab helper	https://langou.github.io/4650/1.1/exercise ex 1 1 07 a2e oer langou/exercise ex 1 1 07 a2e oer langou sol langou.pdf https://colab.research.google.com/drive/1NdHyu9rQKNS44TM-G5gNn2SWsH84CP90
cp.1.1.2	colab	•	cp.1.1.1 colab solution cp.1.1.1 PDF helper	https://colab.research.google.com/drive/10iYN2gfKaqoFF8Q4RDa3Y7569rp0Yrak https://langou.github.io/4650/1.1/exercise cp 1 1 01 a2c sauer3/exercise cp 1 1 01 a2c sauer3 sol langou.pdf
ex.1.2.8	handwritten	ex.1.2.7	ex.1.2.7 PDF solution	https://langou.github.io/4650/1.2/exercise ex 1 2 07 a2c sauer3/exercise ex 1 2 07 a2c sauer3 sol langou.pdf
ex.1.2.14	handwritten	ex.1.2.15	ex.1.2.15 PDF solution	https://langou.github.io/4650/1.2/exercise ex 1 2 15 a2c sauer3/exercise ex 1 2 15 a2c sauer3 sol langou.pdf
cp.1.2.4	handwritten	-	cp.1.2.3 colab solution cp.1.2.3 PDF solution	https://colab.research.google.com/drive/1Ze9NgNqovpc89Xr3Azta-y-H I4BArSM?usp=sharing https://langou.github.io/4650/1.2/exercise cp 1 2 03 a2b sauer3/exercise cp 1 2 03 a2b sauer3 sol langou.pdf
ex.1.3.8	handwritten	example.1.10	(see Sauer's book)	https://bookshelf.vitalsource.com/#/books/9780134697376/pageid/67
cp.1.3.2	colab	-	(see Sauer's answer) cp.1.3.2 pdf getting started	https://media.pearsoncmg.com/aw/aw sauer num analysis 3/solutions/sol 1 3.html https://langou.github.io/4650/1.3/exercise cp 1 3 02 sauer3/exercise cp 1 3 02 sauer3 getting started.pdf
ex.1.4.2	handwritten	ex.1.4.1	(see Sauer's answer)	https://media.pearsoncmg.com/aw/aw sauer num analysis 3/solutions/sol 1 4.html
ex.1.4.4	handwritten	ex.1.4.3	(see Sauer's answer)	https://media.pearsoncmg.com/aw/aw_sauer_num_analysis_3/solutions/sol_1_4.html
cp.1.4.2	colab	cp.1.4.1	cp.1.4.1 colab solution	https://colab.research.google.com/drive/1Y9ASj76NH8tbOy5xOZIVTvBxeoGMZw1f https://langou.github.io/4650/1.4/exercise cp 1 4 01 a2c sauer3/exercise cp 1 4 01 a2c sauer3 sol langou.pdf
cp.1.4.8	colab	•	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	https://colab.research.google.com/drive/1-akjROUL9xvwEIYW5sZDOQOx8mhapqjJ https://langou.github.io/4650/1.4/exercise cp 1 4 07 sauer3/exercise cp 1 4 07 sauer3 https://colab.research.google.com/drive/1ZxFwe53XlgAHlaokGIVzykPZJmXOZID9 https://langou.github.io/4650/1.4/exercise_cp_1_4_08 sauer3/exercise_cp_1_4_08 sauer3 plot1.pdf
cp.1.5.1	colab	cp.1.5.1.a	cp.1.5.1.a colab solution	https://colab.research.google.com/drive/15UDMylJ7GXKZSDJiJdsZUxbBvDYF2ciG
cp.1.5.2	colab	cp.1.5.2.a	cp.1.5.2.a colab solution	https://colab.research.google.com/drive/1jFcHbKYRHbWr8Jc1Cl-OhaSH25dHQTZu
cp.1.5.3	colab	cp.1.5.3.a	cp.1.5.3.a colab solution	https://colab.research.google.com/drive/1ghqOaqXrL3Tis46cOTE2FZ8PTt3itUI7