

	type: colab or homework	colab or handwritten	similar exercise						
ex.3.1.1.b2c	handwritten	ex.3.1.1.a	ex.3.1.1.a PDF solution ex.3.1.1.a colab helper	<a href="https://langou.github.io/4650/3.1/exercise_ex_3_1_01_a_sauer3/exercise_ex_3_1_01_a_sauer3_sol_langou.pdf">https://langou.github.io/4650/3.1/exercise_ex_3_1_01_a_sauer3/exercise_ex_3_1_01_a_sauer3_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/1PTbCPu8PGH-2AtLUg6vfdEgAJ_akTort">https://colab.research.google.com/drive/1PTbCPu8PGH-2AtLUg6vfdEgAJ_akTort</a>					
ex.3.1.2.b2c	handwritten	ex.3.1.2.a	ex.3.1.2.a PDF solution ex.3.1.2.a colab helper	<a href="https://langou.github.io/4650/3.1/exercise_ex_3_1_02_a_sauer3/exercise_ex_3_1_02_a_sauer3_sol_langou.pdf">https://langou.github.io/4650/3.1/exercise_ex_3_1_02_a_sauer3/exercise_ex_3_1_02_a_sauer3_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/1BTq_0lcW6zc7cmCuzNj3DkOWypQbsS6W">https://colab.research.google.com/drive/1BTq_0lcW6zc7cmCuzNj3DkOWypQbsS6W</a>					
ex.3.1.4 ex.3.1.6	handwritten handwritten	ex.3.1.5	ex.3.1.5 PDF solution ex.3.1.5 colab helper	<a href="https://langou.github.io/4650/3.1/exercise_ex_3_1_05_sauer3/exercise_ex_3_1_05_sauer3_sol_langou.pdf">https://langou.github.io/4650/3.1/exercise_ex_3_1_05_sauer3/exercise_ex_3_1_05_sauer3_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/1PdKl7_0yW7CCBqj22YIVIGc2GwQDbsWh">https://colab.research.google.com/drive/1PdKl7_0yW7CCBqj22YIVIGc2GwQDbsWh</a>					
ex.3.1.8 ex.3.1.10	handwritten handwritten	ex.3.1.7	ex.3.1.7 PDF solution ex.3.1.7 colab helper	<a href="https://langou.github.io/4650/3.1/exercise_ex_3_1_07_sauer3/exercise_ex_3_1_07_sauer3_sol_langou.pdf">https://langou.github.io/4650/3.1/exercise_ex_3_1_07_sauer3/exercise_ex_3_1_07_sauer3_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/1Uswdel4ElsmdtIibX06L-6_AVDeJJYu">https://colab.research.google.com/drive/1Uswdel4ElsmdtIibX06L-6_AVDeJJYu</a>					
ex.3.1.18	colab	ex.3.1.17	ex.3.1.17 COLAB solution ex.3.1.17 PDF helper	<a href="https://colab.research.google.com/drive/18ib4wsRwTsUqVwA6LxgIReG2Dc18pAO2">https://colab.research.google.com/drive/18ib4wsRwTsUqVwA6LxgIReG2Dc18pAO2</a> <a href="https://langou.github.io/4650/3.1/exercise_ex_3_1_17_sauer3/exercise_ex_3_1_17_sauer3_sol_langou.pdf">https://langou.github.io/4650/3.1/exercise_ex_3_1_17_sauer3/exercise_ex_3_1_17_sauer3_sol_langou.pdf</a>					
cp.3.1.4	colab	example 3.7	example 3.7 colab solution	<a href="https://colab.research.google.com/drive/1FMrOO5abHOOflUS6bgAUJjiRt1Xa-grE">https://colab.research.google.com/drive/1FMrOO5abHOOflUS6bgAUJjiRt1Xa-grE</a>					
ex.3.2.2	handwritten	ex.3.2.1	ex.3.2.1 PDF solution ex.3.2.1 colab helper	<a href="https://langou.github.io/4650/3.2/exercise_ex_3_2_01_sauer3/exercise_ex_3_2_01_sauer3_sol_langou.pdf">https://langou.github.io/4650/3.2/exercise_ex_3_2_01_sauer3/exercise_ex_3_2_01_sauer3_sol_langou.pdf</a> <a href="https://colab.research.google.com/drive/1ZT7KFrkVfylnVCN9uXj-35jVXkNJ8yEL">https://colab.research.google.com/drive/1ZT7KFrkVfylnVCN9uXj-35jVXkNJ8yEL</a>					