Errata for Linear and Nonlinear Optimization, 2nd Edition, Second Printing
by Griva, Nash, and Sofer
Last modified on March 28, 2023

Items are sorted by order of occurrence within the book. Negative line numbers are counted from the bottom of the page. Within displayed equations matrices and vectors are counted as a single line.

Page 16	Line -1		
	Change:	get	
	To:	gets	
Page 33	Line -10		
	Change:	100,000	
	To:	1,000,000	
Page 35	Line 12		
	Change:	(a)	
	To:	(i)	
Page 53	Exercise 3.13		
	Change:	for all real number k	
	To:	for all real numbers k	
Page 112	Line 16		
	Change:	are$adjacent$	
	To:	are $adjacent$	
Page 290	Line -4		
	Change:	In the current basis $x_{3,4} = x_{4,6} = 15$	
	To:	In the current basis $x_{3,4} = x_{4,6} = 10$.	
Page 290	Line -3		
	Change:	equal to 15	
	To:	equal to 10.	
Page 389	Exercise 5.16 (i)		
	Change:	sufficient descent condition	
	To:	sufficient decrease condition	
Page 399	Line -11 (Exercise 6.7)		
	Change:	pc	
	To:	p_c	
Page 435	Line 4 of Exercise 12.16		
	Change:	$x_* = (0.25, -0.75)^T$	
	To:	$x_* = (-0.75, 0.25)^T$	
Page 436	Line 6		
	Change:	$(0.25, -0.75)^T$	
	To:	$(-0.75, 0.25)^T$	
Page 476	Table 13.4		
	Change:		

	Preconditioned			Unpreconditioned	
i	$\|r_i\|$	$\|x_i - x_*\|$	i	$\|r_i\|$	$\|x_i - x_*\|$
0	2×10^0	4×10^{-1}	0	2×10^0	4×10^{-1}
1	1×10^0	4×10^{-1}	1	9×10^{-1}	3×10^{-1}
2	1×10^0	2×10^{-1}	2	4×10^{-1}	2×10^{-1}
3	4×10^{-1}	4×10^{-2}	3	2×10^{-1}	1×10^{-1}
4	3×10^{-2}	3×10^{-3}	4	2×10^{-1}	9×10^{-2}
5	4×10^{-3}	3×10^{-4}	5	1×10^{-1}	5×10^{-2}
6	3×10^{-4}	3×10^{-5}	6	9×10^{-2}	2×10^{-2}
7	1×10^{-5}	2×10^{-6}	7	3×10^{-2}	7×10^{-3}
8	1×10^{-6}	8×10^{-8}	8	2×10^{-2}	3×10^{-3}
9	2×10^{-16}	8×10^{-17}	9	5×10^{-3}	1×10^{-3}
			10	1×10^{-0}	6×10^{-4}
			11	9×10^{-4}	2×10^{-4}
			12	4×10^{-4}	5×10^{-5}
			13	1×10^{-4}	1×10^{-5}
			14	6×10^{-6}	7×10^{-7}
			15	7×10^{-18}	8×10^{-17}

To:

	Preconditioned			Unpreconditioned	
i	$\|r_i\|$	$\|x_i - x_*\|$	i	$\|r_i\|$	$\|x_i - x_*\|$
0	4×10^0	1×10^0	0	4×10^0	1×10^0
1	3×10^0	1×10^0	1	2×10^0	1×10^0
2	3×10^0	6×10^{-1}	2	1×10^0	7×10^{-1}
3	9×10^{-1}	1×10^{-2}	3	1×10^0	5×10^{-1}
4	2×10^{-1}	2×10^{-2}	4	7×10^{-1}	3×10^{-1}
5	3×10^{-2}	2×10^{-3}	5	4×10^{-1}	2×10^{-1}
6	4×10^{-3}	3×10^{-4}	6	3×10^{-1}	8×10^{-2}
7	4×10^{-4}	4×10^{-5}	7	1×10^{-1}	4×10^{-2}
8	4×10^{-5}	3×10^{-6}	8	7×10^{-2}	2×10^{-2}
9	2×10^{-16}	2×10^{-16}	9	3×10^{-2}	8×10^{-3}
			10	1×10^{-2}	3×10^{-3}
			11	6×10^{-3}	1×10^{-3}
			12	2×10^{-3}	3×10^{-4}
			13	5×10^{-4}	7×10^{-5}
			14	8×10^{-5}	1×10^{-5}
			15	2×10^{-17}	2×10^{-16}

Page 489	Exercise 2.2, (ii),(iii), (iv), (v) and (vii))	
	Note:	These problems have nonlinear equalities and require the material of Section 14.4
Page 538	Line -16	
	Change:	an n-dimensional vector ξ
	To:	an m-dimensional vector ξ
Page 541	Line 15	
	Change:	dual problem
	To:	primal problem
Page 604	Line 5	
	Change:	$\beta_\mu = f(x) - \mu \sum\limits_{i=1}^{m} \frac{1}{g_i(x)}$
	To:	$\beta_\mu = f(x) + \mu \sum\limits_{i=1}^{m} \frac{1}{g_i(x)}$
Page 638	Line -3	
	Change:	x_k
	To:	x_{k+1}
Page 638	Line -2	
	Change:	λ_1
	To:	λ_0
Page 638	Line -1	
	Change:	$x_k = -\frac{\theta Q^{-1}b}{(1+\rho b^T Q^{-1}b)^k}$ and $\lambda_{k+1} = -\theta \left[\frac{1}{(1+\rho b^T Q^{-1}b)^k} - 1 \right]$
	To:	$x_{k+1} = -\frac{\theta Q^{-1}b}{(1+\rho b^T Q^{-1}b)^{k+1}}$ and $\lambda_{k+1} = -\theta \left[\frac{1}{(1+\rho b^T Q^{-1}b)^{k+1}} - 1 \right]$
Page 651	Line -16	
	Change:	minimization of the k largest
	To:	minimization of the sum of the k largest
Page 656	Line 1 of Exercise 8.9	
	Change:	minimization of the k largest eigenvalues
	To:	minimization of the sum of the k largest eigenvalues