

An INTRODUCTION to NUMERICAL METHODS A MATLAB Approach

Errata (October 1, 2003)

Errata list (First Edition):

Page#	Line # ---->	Incorrect	Correct
		* Means from the bottom	
11	last	The general form of an if loop is	The general form of an if statement is
83	9	Algorithm: [.2cm]	Algorithm:
83	Last	...step we have [.2cm]	...step we have
83	4*	... of A below $a_{11}(1)$... of A below $a_{11}^{(1)}$
112	2	... and from 3 the multiples m_{21} of and from 3 the multiples m_{31} of ...
137	3*	$P_3(x) = \dots + \frac{1}{8}(x-2)(x-4)(x-6)$	$P_3(x) = \dots - \frac{1}{8}(x-2)(x-4)(x-6)$
138	Table 5.4	$\frac{\frac{1}{4} + \frac{1}{2}}{8-2} = \frac{1}{8}$	$\frac{-\frac{1}{2} - \frac{1}{4}}{8-2} = -\frac{1}{8}$
146	11	... $b=2, f^{(10)}(x) = -\cos x$ and $ f^{(10)}(x) = -\cos x \leq 1$... $b=2, f^{(11)}(x) = \sin x$ and $ f^{(11)}(x) = \sin x \leq 1$
200	Figure 7.8 caption	Plot ... in [0,3]	Plot ... in [0,4.4]
209	14*	$a(h) = a(0.1) \dots \approx 4.4889162287752$	$a(h) = a(0.1) \dots \approx 4.489162287752$
209	11*	$f'(1.5) \approx \dots (4.483556674219 - 4.4889162287752)$	$f'(1.5) \approx \dots (4.483556674219 - 4.489162287752)$
211	8*	The MATLAB function f1 used ... function $f=f1(x)$	The MATLAB function f2 used ... function $f=f2(x)$
220	Table 8.4 caption	The composite trapezoidal rule for $f(x)=2x+1$ with $n=5$.	The trapezoidal rule for $f(x)=2x+1$.
237	13*	x_0, x_1, \dots, x_n	x_1, x_2, \dots, x_n
238	2* Last	an n th degree ... $p_n(x)$... $p_n(z)dz = \dots$	an $(n-1)$ th degree ... $p_n(z)$... $p_{n-1}(z)dz = \dots$
239	1	$n+1$ sample points $x_i \dots$	n sample points $z_i \dots$
239	6	$n+1$ points ...	n points ...
239	4*	$\dots + w_3 z_3^3$	$\dots + w_3 z_3^2$
241	2*	$I \approx \frac{5}{9} \left[7 + 14 \left(\sqrt{\frac{3}{5}} \right)^6 \right] + \frac{8}{9} \cdot 7 + \frac{5}{9} \left[7 + 14 \left(\sqrt{\frac{3}{5}} \right)^6 \right]$	$I \approx \frac{1}{2} \left\{ \frac{5}{9} \left[7 + 14 \left(\frac{-\sqrt{3/5+1}}{2} \right)^6 \right] + \frac{8}{9} \left(7 + \frac{14}{2^6} \right) + \frac{5}{9} \left[7 + 14 \left(\frac{\sqrt{3/5+1}}{2} \right)^6 \right] \right\}$
268	3*	$Y_{10} = 0.36785409848$	$Y_{10} = 0.3685409848$
299	5*	$y_{i+1} = y_i + hf(x_{i+1}, y_{i+1})$	$y_{i+1} = y_i + hg(x_{i+1}, y_{i+1})$
320	9	$1 \leq t \leq 3$	$1 \leq x \leq 3$

320	10	we set $\gamma_1 = y(1) \approx 1.4$	we set $\gamma_1 = y'(1) \approx 1.4$
349	5*	$c_2 \sin(kx) = 0$	$c_2 \sin(kL) = 0$
402	7*	Seidel.....4.7	Seidel.....4.5.2
411	3	0.1.003353	1.003353
412	6	5. 5300966	6. 5300966
415	3*	2.0 23.85002	2.0 13.85002
419	Last	1.0 -28.56	1.0 -34.08
423	17	(d) ... $v^{(1)} = (-1, 0, 1)$	(d) ... $v^{(1)} = (1, 2, 1)$