Errata in Fundamental Maths (2nd edition)

Page	Column	Line	Error	Correction
110	2	5	$y'' > 0 : (0,1)$ is a minimum point	$y'' < 0 : (0,1)$ is a maximum point
230	2	21 to 23	$= 10 \times 49M + 49 \times 3^n - 9 \times 3^n$ $= 10 \times 49M + 40 \times 3^n$ $= 10(49M + 4 \times 3^n)$	$= 10 \times 49M - 49 \times 3^n + 9 \times 3^n$ $= 10 \times 49M - 40 \times 3^n$ $= 10(49M - 4 \times 3^n)$
260	2	6	(g) Two of the boys must sit in a circle (any circle = 2 ways), facing each other (1 way) while the third boy sits in the other circle (4 ways), $\therefore 2 \times 4 \times 5! = 960$ ways.	(g) Two of the three boys can be chosen in 3 ways, and must sit in a circle (any circle = 2 ways), facing each other (1 way) while the third boy sits in the other circle (4 ways), $\therefore 3 \times 2 \times 4 \times 5! = 2880$ ways.
287	1-2	4 from the bottom of column 1	(ii) The two 6's can come from these configurations (0,0,2), (0,1,1), (0,2), (1,1) and (2), where (0,1,1) means number 6's does not appear in the first roll and one 6 appears in the second last roll and one 6 appears in the last roll. $\left(\frac{5}{6}\right)^3 \times \left(\frac{5}{6}\right)^3 \times {}^3C_2\left(\frac{5}{6}\right)\left(\frac{1}{6}\right)^2 + \left(\frac{5}{6}\right)^3 \times {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right)$ $\times {}^2C_1\left(\frac{5}{6}\right)\left(\frac{1}{6}\right) + \left(\frac{5}{6}\right)^3 \times {}^3C_2\left(\frac{5}{6}\right)\left(\frac{1}{6}\right)^2$ $+ {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right) \times {}^2C_1\left(\frac{5}{6}\right)\left(\frac{1}{6}\right) + {}^3C_2\left(\frac{5}{6}\right)\left(\frac{1}{6}\right)^2$ $= 0.285.$ Similarly, if three 6's should also be counted in, then the probability would include these configurations (0,0,3), (0,1,2), (0,3), (1,2) and (3). $\left(\frac{5}{6}\right)^6 \times \left(\frac{1}{6}\right)^3 + \left(\frac{5}{6}\right)^3 \times {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right) \times \left(\frac{1}{6}\right)^2$ $+ \left(\frac{5}{6}\right)^3 \times \left(\frac{1}{6}\right)^3 + {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right) \times \left(\frac{1}{6}\right)^2 + \left(\frac{1}{6}\right)^3$ $= 0.024.$ $\therefore \text{Total} = 0.285 + 0.024 = 0.309.$	(ii) The two 6's can come from these configurations (0,0,2), (0,1,1), (0,2), (1,1), (1,0,1) and (2), where (0,1,1) means number 6's does not appear in the first roll and one 6 appears in the second last roll and one 6 appears in the last roll. $\left(\frac{5}{6}\right)^3 \times \left(\frac{5}{6}\right)^3 \times {}^3C_2\left(\frac{5}{6}\right)\left(\frac{1}{6}\right)^2 + \left(\frac{5}{6}\right)^3 \times {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right)$ $\times {}^2C_1\left(\frac{5}{6}\right)\left(\frac{1}{6}\right) + \left(\frac{5}{6}\right)^3 \times {}^3C_2\left(\frac{5}{6}\right)\left(\frac{1}{6}\right)^2 + {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right)$ $\times {}^2C_1\left(\frac{5}{6}\right)\left(\frac{1}{6}\right) + {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right) \times \left(\frac{5}{6}\right)^2 \times {}^2C_1\left(\frac{5}{6}\right)\left(\frac{1}{6}\right)$ $+ {}^3C_2\left(\frac{5}{6}\right)\left(\frac{1}{6}\right)^2 = 0.352.$ Similarly, if three 6's should also be counted in, then the probability would include these configurations (0,0,3), (0,1,2), (0,3), (1,2), (1,0,2) and (3). $\left(\frac{5}{6}\right)^6 \times \left(\frac{1}{6}\right)^3 + \left(\frac{5}{6}\right)^3 \times {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right) \times \left(\frac{1}{6}\right)^2$ $+ \left(\frac{5}{6}\right)^3 \times \left(\frac{1}{6}\right)^3 + {}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right) \times \left(\frac{1}{6}\right)^2 +$ ${}^3C_1\left(\frac{5}{6}\right)^2\left(\frac{1}{6}\right) \times \left(\frac{5}{6}\right)^2 \times \left(\frac{1}{6}\right)^2 + \left(\frac{1}{6}\right)^3 = 0.031.$ $\therefore \text{Total} = 0.352 + 0.031 = 0.383.$