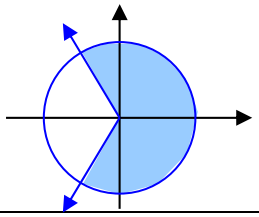
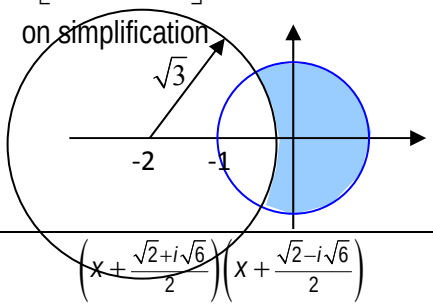
Errata

Page	Column	Line	Error	Correction
7	1	10	(0, 3.5)	(0, 13.5)
8	1	6	equal to	greater than
14	1	7	$\beta)\int_2^3 \frac{1}{1-x}dx$	$\beta)\int_2^3 \frac{1}{\lvert 1-x\rvert}dx$
18	Table	2	$\frac{\pi r}{2}+r$	$\frac{3\pi r}{2}+r$
19	Fig. 1.16		$\frac{\pi r}{2}+r$	$\frac{3\pi r}{2}+r$
86	1	7	$3\cos x+4\sin x=$	$1\cos x+3\sin x=$
90	1	Last, before footnote	$\frac{9x}{(x+2)(x-1)^2}\equiv\frac{A}{x+2}+\frac{Bx+D}{(x+2)^2}$	$\frac{9x}{(x+2)(x-1)^2}\equiv\frac{A}{x+2}+\frac{Bx+D}{(x-1)^2}$
177	1	11	$S>T>1$	$S>T>I$
179	1	Third from last	$\sum_{k=1}^{n}(z+z^2+\ldots+z^n)$	$\sum_{k=1}^{n}(z+z^2+\ldots+z^k)$
184	1	1	complementary	supplementary
200	2	6	$\int_2^3 \frac{1}{1-x}dx$	$\int_2^3 \frac{1}{\lvert 1-x\rvert}dx$
204	1	Second last	$\frac{2x(2x^2-5)}{\pm 2(x^2-1)(x^2-4)}=\frac{x(2x^2-5)}{\pm(x^2-1)(x^2-4)}$	$\frac{\pm 2x(2x^2-5)}{2\sqrt{(x^2-1)(x^2-4)}}=\frac{\pm x(2x^2-5)}{\sqrt{(x^2-1)(x^2-4)}}$
216	1	5th and 7th from last	(–1,2) and (1,2)	(–1,1) and (1,1)
224	1	3	$\frac{(2x-3)\sqrt{x}}{\pm 2\sqrt{x-1}}$	$\frac{(2x-3)\sqrt{x}}{\pm 2\sqrt{(x-1)^3}}$
229	2	Third from last	$\therefore \arg(r)=\arg(p)-\arg(q)=\arg(pq)$	$\therefore \arg(r)=\arg(p)+\arg(q)=\arg(pq)$
254	2	Third from last	$\left\lvert -i\tan\frac{\theta}{2}\right\rvert \le\sqrt{3}\Leftrightarrow -\sqrt{3}\le\tan\frac{\theta}{2}\le\sqrt{3}.$ $\therefore -\frac{\pi}{3}\le\frac{\theta}{2}\le\frac{\pi}{3}.\therefore -\frac{2\pi}{3}\le\theta\le\frac{2\pi}{3}.$ 	$\frac{\lvert 1-z\rvert}{\lvert 1+z\rvert}\le\sqrt{3}\Leftrightarrow(x-1)^2+y^2\le$ $3\left[(x+1)^2+y^2\right],\therefore(x+2)^2+y^2\ge 3,$ on simplification 
259	1	21	$\left(x+\frac{\sqrt{2}+i\sqrt{3}}{2}\right)\left(x+\frac{\sqrt{2}-i\sqrt{3}}{2}\right)$ $\left(x-\frac{\sqrt{2}+i\sqrt{3}}{2}\right)\left(x-\frac{\sqrt{2}-i\sqrt{3}}{2}\right).$	$\left(x+\frac{\sqrt{2}+i\sqrt{6}}{2}\right)\left(x+\frac{\sqrt{2}-i\sqrt{6}}{2}\right)$ $\left(x-\frac{\sqrt{2}+i\sqrt{6}}{2}\right)\left(x-\frac{\sqrt{2}-i\sqrt{6}}{2}\right).$
276	2	10 diagram	including (0,–1) y-intercept is –1	including (0,–2) y-intercept is –2
291	2	1	$\int\frac{3\,dx}{(x^2+4)(x^2+1)}$	$\int\frac{3\,dx}{(4x^2+1)(x^2+1)}$
317	1	16 17	$x^2+(3x-1)^2=0$ $10x^2-6x+1=0$	$x^2+(3x-1)^2=9$ $10x^2-6x-8=0$
330	1	12th from the bottom	$y=mx+1$ is a family of lines all passing through (0, 1). As the chord *MN* must pass through (0, 1), we must consider its limit when it becomes parallel to the asymptotes of the	From the diagram, it can be seen that when the chord $y=mx+1$ meets the hyperbola at 2 points in different branches, the midpoint of the chord belongs to the top branch. And when

			hyperbola $x^2-4y^2=16$ (i.e. shown meeting this hyperbola at *A* and *B*). If the chord *MN* is steeper than this position, it only cuts the hyperbola $x^2-4y^2=16$ at one point. $\therefore$ The locus is the top branch only.	the chord meets the hyperbola at 2 points in the same branch, the midpoint of the chord belongs to the bottom branch. However, the limit is when the chord touches the hyperbola. Solving $x^2-4y^2=16$ and $x^2-4y^2+4y=0$ gives $y=-4$ $\therefore$ The locus is $x^2-4y(y-1)=0, y\geq 1, y<-4$.
352	1	13	$\frac{13}{2}$	$\frac{15}{2}$
381	2	4 5	$mg\sin\theta$ $g\sin\theta$	$-mg\sin\theta$ $-g\sin\theta$
393	2	15, 17, 19	$2\sin\alpha+\sin\alpha$	$2\sin\alpha+\sin\beta$
402	2	4	$\sum_{k=2}^{n}\left(\frac{1}{x}-\frac{2}{x+1}+\frac{1}{x+2}\right)$	$\sum_{k=2}^{n}\left(\frac{1}{k}-\frac{2}{k+1}+\frac{1}{k+2}\right)$
410	1	16	$\frac{{}^6C_1\frac{5!}{2!}}{6570}=\frac{360}{6570}=\frac{2}{73}$	$\frac{{}^4C_1\frac{5!}{2!}}{6570}=\frac{240}{6570}=\frac{8}{219}$
411	2	5	$\frac{{}^4C_3({}^{11}C_1)^3.{}^{11}C_3+{}^4C_2{}^2C_1({}^{11}C_1)^2.({}^{11}C_2)^2}{{}^{44}C_6}$	$\frac{{}^4C_3({}^{11}C_1)^3.{}^{11}C_3+{}^4C_2({}^{11}C_1)^2.({}^{11}C_2)^2}{{}^{44}C_6}$