

# Contents

1	Complex Numbers and Functions	1
2	Sums and Product	5
3	Discrete Fourier Transform	19
4	Algebraic and Transcendental Equations	23
5	Matrix Calculations	29
6	Matrices and Groups	53
7	Matrices and Eigenvalue Problems	57
8	Transformations	77
9	L'Hospital Rule	103
10	Lagrange Multiplier Method	107
11	Linear Difference Equations	111
12	Linear Differential Equations	123
13	Integration	141
14	Continuous Fourier Transform	157
15	Complex Analysis	163
16	Special Functions	179
17	Inequalities	191

<b>18 Functional Analysis</b>	<b>197</b>
<b>19 Combinatorics</b>	<b>209</b>
<b>20 Convex Sets and Functions</b>	<b>215</b>
<b>21 Optimization</b>	<b>221</b>
<b>References</b>	<b>225</b>
<b>Index</b>	<b>227</b>