

Migrating from the Fourth Edition to the Fifth Edition

This section provides a table showing the location in the fifth edition of *Discrete Mathematics and Its Applications* of material that appeared in the fourth edition. This table deals with the exercises.

MAP OF EXERCISES

Almost all of the exercises in the fourth edition appear in the fifth edition, but in most cases the section numbers and exercise numbers have changed. In almost every case parity has been maintained (note that the odd-numbered exercises have answers in the text and solutions in the *Student Solutions Guide*, whereas even-numbered exercises have solutions in this *Instructor's Resource Guide*). In addition, there are about 600 new exercises in the fifth edition (those whose numbers do not appear in the table below).

The following table shows where exercises from the fourth edition appear in the fifth edition. In a few cases, the exercises have been modified slightly. The notation $a.b.c$ means exercise c in section $a.b$. The letter “s” stands for “supplementary exercise.”

<u>fourth edition</u>	<u>fifth edition</u>
1.1.1–1.1.4	1.1.1–1.1.4
1.1.5–1.1.8	1.1.7–1.1.10
1.1.9–1.1.11	1.1.13–1.1.15
1.1.12–1.1.14	1.1.40–1.1.42
1.1.15–1.1.21	1.1.17–1.1.23
1.1.22–1.1.34	1.1.26–1.1.38
1.1.35	1.1.45
1.1.36–1.1.38	1.1.48–1.1.50
1.1.39–1.1.42	1.1.57–1.1.60
1.2.1–1.2.19	1.2.1–1.2.19
1.2.20–1.2.41	1.2.30–1.2.51

<u>fourth edition</u>	<u>fifth edition</u>	(exercise map, continued)
1.3.1–1.3.5	1.3.1–1.3.5	
1.3.6–1.3.8	1.4.4–1.4.6	
1.3.9	1.3.9	
1.3.10–1.3.18	1.4.8–1.4.16 (fourth edition 1.3.16–1.3.17 slightly modified)	
1.3.19	1.3.11	
1.3.20–1.3.24	1.4.26–1.4.30 (most parts)	
1.3.25–1.3.28	1.4.33–1.4.36 (most parts)	
1.3.29–1.3.30	1.4.39–1.4.40	
1.3.31–1.3.34	1.3.55–1.3.58	
1.3.35	1.4.43	
1.3.36–1.3.41	1.3.42–1.3.47	
1.3.42–1.3.43	1.4.44–1.4.45	
1.3.44–1.3.46	1.3.48–1.3.50	
1.3.47	1.4.49	
1.3.48–1.3.50	1.4.46–1.4.48	
1.3.51	(covered in Example 1.4.13)	
1.3.52–1.3.55	1.4.50–1.4.53	
1.4.1–1.4.6	1.6.1–1.6.6	
1.4.7–1.4.24	1.6.9–1.6.26	
1.4.25–1.4.27	1.6.29–1.6.31	
1.5.1–1.5.7	1.7.1–1.7.7	
1.5.8–1.5.51	1.7.10–1.7.53	
1.6.1–1.6.5	1.8.1–1.8.5	
1.6.6–1.6.11	1.8.8–1.8.13	
1.6.12–1.6.15	1.8.16–1.8.19	
1.6.16–1.6.38	1.8.22–1.8.44	
1.6.39	(covered in Example 1.8.24; see also 1.8.68)	
1.6.40–1.6.58	1.8.46–1.8.64	
1.6.59–1.6.60	1.8.69–1.8.70	
1.7.1–1.7.37	3.2.1–3.2.37	
1.7.38	(covered in Example 3.2.19)	
1.7.39–1.7.43	3.2.39–3.2.43	
1.8.1–1.8.63	2.2.1–2.2.63	
1.s.1–1.s.5	1.s.1–1.s.5	
1.s.6–1.s.7	1.s.10–1.s.11	
1.s.8–1.s.15	1.s.14–1.s.21	
1.s.16–1.s.32	1.s.34–1.s.50	
1.s.33–1.s.35	(omitted)	
1.s.36–1.s.40	2.s.14–2.s.18	
2.1.1–2.1.3	2.1.1–2.1.3	
2.1.4–2.1.27	2.1.10–2.1.33	
2.2.1–2.2.21	2.3.1–2.3.21	
2.3.1–2.3.9	2.4.1–2.4.9	
2.3.10–2.3.14	2.4.12–2.4.16	
2.3.15–2.3.24	2.4.19–2.4.28	
2.3.25–2.3.52	2.4.33–2.4.60	
2.4.1	2.5.21 (part of)	
2.4.2–2.4.4	2.5.22–2.5.24	
2.4.5–2.4.8	2.5.1–2.5.4	
2.4.9–2.4.10	(covered on page 172 of text)	
2.4.11	2.5.5	
2.4.12	2.5.8	
2.4.13–2.4.41	2.5.25–2.5.53	

<u>fourth edition</u>	<u>fifth edition</u>	(exercise map, continued)
2.5.1–2.5.17	2.6.1–2.6.17	
2.5.18–2.5.25	2.6.22–2.6.29	
2.5.26–2.5.37	2.6.36–2.6.47	
2.5.38–2.5.46	2.6.52–2.6.60	
2.6.1–2.6.37	2.7.1–2.7.37	
2.s.1–2.s.4	2.s.1–2.s.4	
2.s.5–2.s.29	2.s.19–2.s.43	
3.1.1–3.1.10	1.5.1–1.5.10	
3.1.11	1.5.13 (partly)	
3.1.12	(omitted)	
3.1.13–3.1.19	1.5.17–1.5.23	
3.1.20	(covered in Example 1.5.18)	
3.1.21–3.1.24	1.5.25–1.5.28	
3.1.25–3.1.28	3.1.15–3.1.18	
3.1.29	1.5.33	
3.1.30	3.1.20	
3.1.31	1.5.35	
3.1.32	3.1.32	
3.1.33	1.5.34	
3.1.34–3.1.36	1.5.38–1.5.40	
3.1.37–3.1.38	3.1.21–3.1.22	
3.1.39	1.5.41	
3.1.40	3.1.24	
3.1.41	(essentially covered in Example 1.5.29)	
3.1.42	3.1.38	
3.1.43–3.1.45	1.8.65–1.8.67	
3.1.46–3.1.48	3.1.34–3.1.36	
3.1.49–3.1.51	1.5.71–1.5.73	
3.1.52	(omitted)	
3.1.53–3.1.54	3.1.25–3.1.26	
3.1.55–3.1.56	1.5.75–1.5.76	
3.1.57–3.1.58	3.1.27–3.1.28	
3.1.59	(covered in Example 3.1.5)	
3.1.60	(omitted)	
3.1.61	1.5.67	
3.1.62	1.5.64	
3.1.63	(covered in Example 1.5.27)	
3.1.64–3.1.66	1.5.68–1.5.70	
3.1.67	1.5.77	
3.1.68	(omitted)	
3.2.1–3.2.33	3.3.1–3.3.33	
3.2.34–3.2.36	3.3.36–3.3.38	
3.2.37–3.2.45	3.3.41–3.3.49	
3.2.46	(omitted)	
3.2.47	3.3.51	
3.2.48–3.2.57	3.3.54–3.3.63	
3.2.58–3.2.69	3.3.66–3.3.77	
3.3.1–3.3.4	3.4.1–3.4.4	
3.3.5–3.3.23	3.4.7–3.4.25	
3.3.24	(essentially covered in Example 3.4.13)	
3.3.25	3.4.31	
3.3.26–3.3.34	3.4.34–3.4.42	
3.3.35–3.3.53	3.4.47–3.4.65	
3.3.54–3.3.66	3.s.68–3.s.80	
3.4.1–3.4.9	3.5.1–3.5.9	
3.4.10–3.4.25	3.5.16–3.5.31	
3.5.1–3.5.13	3.6.1–3.6.13	

<u>fourth edition</u>	<u>fifth edition</u>	(exercise map, continued)
3.s.1	1.5.24	
3.s.2	3.s.4	
3.s.3–3.s.5	(omitted)	
3.s.6	3.s.6	
3.s.7	(omitted)	
3.s.8–3.s.20	3.s.8–3.s.20	
3.s.21–3.s.28	3.s.25–3.s.32	
3.s.29–3.s.44	3.s.41–3.s.56	
3.s.45–3.s.49	3.s.59–3.s.63	
3.s.50	3.s.64 (slightly changed)	
3.s.51–3.s.52	3.s.65–3.s.66	
4.1.1–4.1.51	4.1.1–4.1.51	
4.1.52–4.1.56	4.1.54–4.1.58	
4.2.1–4.2.14	4.2.1–4.2.14	
4.2.15	4.2.17	
4.2.16–4.2.17	4.2.40–4.2.41	
4.2.18–4.2.24	4.2.20–4.2.26	
4.2.25–4.2.29	4.2.29–4.2.33	
4.2.30–4.2.33	4.2.36–4.2.39	
4.2.34–4.2.35	4.2.18–4.2.19	
4.2.36–4.2.37	4.2.42–4.2.43	
4.3.1–4.3.10	4.3.1–4.3.10	
4.3.11–4.3.15	4.3.13–4.3.17	
4.3.16	4.3.20	
4.3.17–4.3.32	4.3.25–4.3.40	
4.3.33–4.3.34	4.4.23–4.4.24	
4.3.35–4.3.45	4.4.3–4.4.13	
4.3.46	(incorporated in 4.4.14)	
4.3.47	4.4.19	
4.3.48	4.4.22	
4.3.49–4.3.59	4.4.27–4.4.37	
4.3.60–4.3.62	4.3.42–4.3.44	
4.3.63	4.4.39	
4.4.1–4.4.30	5.1.1–5.1.30	
4.4.31–4.4.36	5.1.35–5.1.40	
4.5.1–4.5.5	5.2.1–5.2.5	
4.5.6–4.5.11	5.2.12–5.2.17	
4.5.12–4.5.13	(covered in Example 5.2.13)	
4.5.14–4.5.27	5.2.22–5.2.35	
4.5.28–4.5.35	5.3.2–5.3.9	
4.5.36	5.3.32	
4.5.37	(covered in Example 5.3.10)	
4.5.38	(essentially 5.3.14)	
4.5.39	(essentially 5.3.15)	
4.5.40	(covered in Example 5.3.10)	
4.5.41	(covered in Example 5.3.6)	
4.5.42–4.5.46	5.3.22–5.3.26	
4.5.47–4.5.49	5.3.29–5.3.31	
4.5.50–4.5.52	5.3.36–5.3.38	
4.6.1–4.6.20	4.5.1–4.5.20	
4.6.21–4.6.52	4.5.25–4.5.56	
4.7.1	4.6.1	
4.7.2–4.7.14	4.6.4–4.6.16	

<u>fourth edition</u>	<u>fifth edition</u>	(exercise map, continued)
4.s.1–4.s.21	4.s.1–4.s.21	
4.s.22–4.s.23	5.s.1–5.s.2	
4.s.24–4.s.26	4.s.22–4.s.24	
4.s.27	(covered in second proof of Corollary 4.3.1)	
4.s.28–4.s.30	4.s.26–4.s.28	
4.s.31	(covered in Corollary 4.4.3)	
4.s.32–4.s.33	4.s.30–4.s.31	
4.s.34	5.s.4	
4.s.35	5.s.3	
4.s.36–4.s.38	5.s.12–5.s.14	
4.s.39–4.s.43	5.s.23–5.s.27	
4.s.44	5.s.30	
4.s.45–4.s.56	4.s.33–4.s.44	
5.1.1	6.1.1	
5.1.2–5.1.4	6.1.4–6.1.6	
5.1.5–5.1.10	6.1.9–6.1.14	
5.1.11–5.1.62	6.1.17–6.1.68	
5.2.1–5.2.52	6.2.1–6.2.52	
5.3.1–5.3.16	6.3.1–6.3.16	
5.3.17–5.3.25	6.3.29–6.3.37	
5.4.1–5.4.60	6.4.1–6.4.60	
5.5.1–5.5.29	6.5.1–6.5.29	
5.6.1–5.6.27	6.6.1–6.6.27	
5.s.1–5.s.35	6.s.1–6.s.35	
6.1.1–6.1.4	7.1.1–7.1.4	
6.1.5–6.1.8	7.1.7–7.1.10	
6.1.9	7.1.13	
6.1.10–6.1.11	7.1.16–7.1.17	
6.1.12	7.1.20	
6.1.13–6.1.21	7.1.23–7.1.31	
6.1.22–6.1.24	7.1.40–7.1.42	
6.1.25–6.1.37	7.1.45–7.1.57	
6.2.1–6.2.5	7.2.1–7.2.5	
6.2.6–6.2.11	7.2.14–7.2.19	
6.3.1	7.3.1	
6.3.2	7.3.3	
6.3.3	(omitted)	
6.3.4	7.3.7	
6.3.5–6.3.9	7.3.11–7.3.15	
6.3.10	7.3.18	
6.3.11	7.3.20	
6.3.12–6.3.13	7.3.22–7.3.23	
6.3.14–6.3.15	7.3.26–7.3.27	
6.3.16	7.3.30	
6.3.17	(parts of 7.3.31–7.3.32)	
6.3.18	7.3.36	
6.3.19	7.3.35	
6.4.1–6.4.35	7.4.1–7.4.35	
6.5.1–6.5.10	7.5.1–7.5.10	
6.5.11–6.5.25	7.5.15–7.5.29	
6.5.26	7.5.32	
6.5.27	7.5.37	
6.5.28–6.5.43	7.5.40–7.5.55	

<u>fourth edition</u>	<u>fifth edition</u>	(exercise map, continued)
6.6.1–6.6.14	7.6.1–7.6.14	
6.6.15–6.6.45	7.6.17–7.6.47	
6.6.46–6.6.50	7.6.54–7.6.58	
6.s.1–6.s.26	7.s.1–7.s.26	
6.s.27	7.6.59	
6.s.28–6.s.33	7.s.28–7.s.33	
6.s.34–6.s.35	(covered in Example 3.4.15)	
6.s.36–6.s.48	7.s.36–7.s.48	
7.1.1–7.1.13	8.1.1–8.1.13	
7.1.14–7.1.17	8.1.16–8.1.19	
7.1.18–7.1.21	8.1.26–8.1.29	
7.2.1–7.2.11	8.2.1–8.2.11	
7.2.12–7.2.20	8.2.18–8.2.26	
7.2.21–7.2.45	8.2.29–8.2.53	
7.3.1–7.3.69	8.3.1–8.3.69	
7.4.1–7.4.6	8.4.1–8.4.6	
7.4.7–7.4.38	8.4.15–8.4.46	
7.5.1–7.5.7	8.5.1–8.5.7 (these ask about circuits <i>and</i> paths)	
7.5.8–7.5.14	8.5.1–8.5.7 (these ask about circuits <i>and</i> paths)	
7.5.15–7.5.23	8.5.9–8.5.17	
7.5.24–7.5.28	8.5.18–8.5.22 (these ask about circuits <i>and</i> paths)	
7.5.29–7.5.33	8.5.18–8.5.22 (these ask about circuits <i>and</i> paths)	
7.5.34–7.5.56	8.5.24–8.5.46	
7.5.57–7.5.72	8.5.49–8.5.64	
7.6.1–7.6.30	8.6.1–8.6.30	
7.7.1–7.7.7	8.7.1–8.7.7	
7.7.8–7.7.35	8.7.10–8.7.37	
7.8.1–7.8.2	8.8.1–8.8.3 (differently organized)	
7.8.3–7.8.31	8.8.5–8.8.33	
7.s.1–7.s.52	8.s.1–8.s.52	
8.1.1	9.1.2	
8.1.2	9.1.4	
8.1.3	9.1.6	
8.1.4	9.1.8	
8.1.5	9.1.10	
8.1.6–8.1.7	9.1.11–9.1.13 (reorganized)	
8.1.8–8.1.40	9.1.14–9.1.46	
8.2.1–8.2.10	9.2.1–9.2.10	
8.2.11–8.2.14	9.2.19–9.2.22	
8.3.1–8.3.15	9.3.1–9.3.15	
8.3.16–8.3.23	9.3.16–9.3.19 (reorganized)	
8.3.24–8.3.38	9.3.20–9.3.34	
8.4.1–8.4.3	2.1.35–2.1.37	
8.4.4–8.4.8	3.5.32–3.5.36	
8.4.9–8.4.10	2.1.41–2.1.42	
8.4.11	2.3.24	
8.4.12–8.4.18	3.5.38–3.5.44	
8.4.19	(discussed in Section 3.5)	
8.5.1–8.5.16	9.4.1–9.4.16	
8.5.17–8.5.20	9.4.23–9.4.26	
8.5.1–8.5.16	9.4.1–9.4.16	
8.5.21–8.5.22	(discussed in Section 9.4)	
8.5.23–8.5.34	9.4.27–9.4.38	
8.5.35–8.5.41	9.4.49–9.4.55	
8.6.1–8.6.32	9.5.1–9.5.32	

<u>fourth edition</u>	<u>fifth edition</u>	(exercise map, continued)
8.s.1–8.s.12	9.s.1–9.s.12	
8.s.13–8.s.19	9.s.19–9.s.25	
8.s.20	(essentially 2.1.38)	
8.s.21	(discussed in Section 2.1)	
8.s.22	(covered in Example 2.3.6)	
8.s.23	(omitted)	
8.s.24–8.s.36	9.s.26–9.s.38	
8.s.37	9.2.38 (part of)	
8.s.38	9.s.42	
8.s.39	9.s.41	
8.s.40	9.s.43	
8.s.41	9.s.44	
9.1.1–9.1.2	10.1.1–10.1.2	
9.1.3–9.1.15	10.1.7–10.1.19	
9.1.16–9.1.33	10.1.22–10.1.39	
9.2.1–9.2.20	10.2.1–10.2.20	
9.3.1–9.3.19	10.3.1–10.3.19	
9.4.1–9.4.7	10.4.1–10.4.7	
9.4.8–9.4.10	10.4.12–10.4.14	
9.4.11	10.4.17 (slightly modified)	
9.4.12–9.4.24	10.4.20–10.4.32	
9.s.1–9.s.24	10.s.1–10.s.24	
10.1.1–10.1.24	11.1.1–11.1.24	
10.1.25	11.1.36	
10.2.1–10.2.21	11.2.1–11.2.21	
10.3.1–10.3.29	11.3.1–11.3.29	
10.4.1–10.4.20	11.4.1–11.4.20	
10.5.1–10.5.24	11.5.1–11.5.24	
A.1.1–A.1.6	A.1.1–A.1.6	
A.2.1–A.2.3	A.2.1–A.2.3	