## Homework

Section 1.8: 41-44

1. Prove that a closed knight's tour does not exist on the $3 \times 6$ board.
2. Place 14 non-threatening bishops on the $8 \times 8$ board.
3. Threaten every square on the $5 \times 7$ board with 3 queens.
4. For even $n$, place $\frac{n^{2}}{2}$ non-threatening knights on the $n \times n$ board. Section 2.3: 1, 2, 4, 5, 8-13, 15, 20, 21
Section 2.4: 1-5, 7-10, 30-33, 35, 39, 40, 43-46
Section 5.1: 3-6, 9, 12-14, 18-20, 31-34
Section 5.2: 3, 4, 6
Section 5.3: 1-3, 7, 8, 12, 13, 15, 16, 23, 25
Section 6.1: $1-16,22,23,27,32,33,34,35,41,44,45,46,48,49,52,53$
Section 6.2: 1-6, 9, 13-16, 18, 34, 37, 40
Section 6.3: 1-3, 5-13, 16-18, 23, 26, 27, 30, 33, 34, 40, 41
Section 6.4: 1b, 2b, 3-9, 15, 21, 22, 24, 28, 29, 31, 33
Section 6.5: 1-12, 14-16, 19, 20, 30-32, 36, 41-43
Section 7.1: 1, 3-13, 22, 23, 25-27, 31-33
Section 8.5: 1-5, 7-10, 16, 25
Section 10.1: 13, 16
Section 10.2: 1-5, 7-10, 18-26, 28-30, 36-43, 48, 49, 53-55, 59-62
