

## Instructions

Assignments are not to be handed in, but to be kept in the homework journal. Each assignment will be tested during an in-class quiz, which takes place on the assignment due date.

## Reading

For Monday, Sections 1.2 and 1.3.

For Wednesday, Section 1.4.

For Friday, Section 3.4.

## Assignment questions

Section 1.2: 16, 26, 30.

Section 1.3: 8, 16, 20, 26, 28.

Section 1.4: 10, 12, 28.

## Some other questions worth trying

Section 1.2: 3, 11, 21, 25.

Section 1.3: 3, 7, 19, 23, 25.

Section 1.4: 7, 11, 17, 23.

## Selected Hints & Answers

- 1.2, 16. (a)  $40^{25}$  (b)  $(40^2)(30^{23})$
- 1.2, 26. For both cases there are  $14!/7!7!$  paths.
- 1.2, 30. (a) 5 letters:  $26^3$ . 6 letters:  $26^3$ . (b) 15600.
- 1.3, 8. (a)  $\binom{4}{1}\binom{13}{5}$  (b)  $\binom{4}{4}\binom{48}{1}$
- 1.3, 16. (a) 97 (b)  $-5$  (c) 12 (d) 0 (e) 3.
- 1.3, 20. (a) 56 (b) 70 (c) 219.
- 1.3, 26. (a) 113400 (b) 718502400 (c) 10103940000.
- 1.3, 28. (a)  $2^n/n!$  (b) 0.
- 1.4, 10.  $\binom{87}{82}$
- 1.4, 12. (a)  $\binom{44}{39}$  (b)  $\binom{59}{54}$
- 1.4, 28. (a)  $\binom{n+1}{5}$  (b)  $\binom{n+1}{7}$