Comments on chapter 3: Fractal geometry.

- When Fig. 3.3(b) is discussed on p. 55, it is stated that if the middle square is removed, the dimension is still $D = 2$. This is clearly true if no more squares are removed. However, if the eight remaining squares are treated in the same way, i.e. they are devided into 9 squares and the middle is removed on so on for the remaining squares in an iterative process, then a fractal is formed (with $D = \log(8)/\log(3)$).

- In order to calculate the box or Hausdorff dimension of for example von Koch's curve, it should be covered by two-dimensional surfaces according to the definition and as illustrated for the box dimension in Fig. 3.4. However, for the simple non-overlapping fractals constructed from lines in two dimensions, it is generally possible and much easier to construct 'boxes' from line segments instead (in a similar way as done when introducing fractals in the begining of the chapter). This is done without any comment for example when calculating the Hausdorff dimension of von Koch's curve at the top of page 58. Furthermore, for these simple fractals, it is acceptable to let all boxes have the same size when calculating the Hausdorff dimension. Note also that you are allowed to use these simplifications in the exercises.

- Problem 3.9, optional.
  If you calculate the box dimension in the correct way, you should get the same result as when using Eq. 3.9. This is however very difficult to do in analytical calculations. If you do not carry the iteration far enough before covering the fractal with boxes, you will easily end up with a wrong result.