

Exercise 1

1. A modern hard disc holds 1 TByte. HD TV $1920 \times 1080i25$ denotes 1920 x 1080 pixels with 25 frames / s. To represent the three primary colours 24 bits are needed per pixel.
 - a) How long time can be recorded on the disc?
 - b) Can the raw data be recorded on a SATA 3.0 standard disc drive (6 Gbits/s transfer rate) ?
2. What is van Neuman Syndrome? Describe in max 4 sentences.
3. USB 2.0 has a theoretical data transfer rate of 480 Mbits/s. The overhead for protocols etc is 15% How long does it take to transfer 1 GByte of data.