```
1;
    a)
    250 GB = 262 144 000 KB -> Blocks

    b)
    262 144 000

    c)
    2^x = 262 144 000
    x = log2(262 144 000)
    x = 27,96 also 28 Bit

    d)
    262 144 000 * 28 / 1024 = 7 168 000 Blocks

2;
    a)
    single indirect
    107 834 590 - 256 = 107 834 334
    double indirect
    107 834 334 - 256^2 = 107 768 798
    triple indirect
    107 768 798 - 256^3 = 90 991 582
    now the block can be read
    90 991 582 - 256^4 = -

    b)
    107834590 / 1024 = 105 307
    107834590 % 1024 = 222
    go through the fat to the 105 307 block
    and skip in this the first 222 bytes

3;
    4KB
    10 * 4 = 40 KB
    4096KB/4B * 4096KB = 4.194304 GB
    (4096/4B)*2 * 4096KB = 4. 294 967 296 TB
    (4096/4B)*3 * 4096KB = 4. 398 046 511 104 EB

    1KB
    10 * 1 KB = 10KB// first 10 data blocks
    1024KB/4B * 1024KB = 262,144 MB
    (1024/4B)*2 * 1024KB = 67,108864 GB
    (1024/4B)*3 * 1024KB = 17,179869184 TB

4;
    a)
    yes, i think, most files are small and with 512 bytes, the memory is more efficient used.
```