

tiny.txt

1)

(a) 262 144 000 Blocks

(b) Blocks = Entries amount

(c) 28 Bit $\rightarrow x = \log_2(262\,144\,000)$

(d) $(262\,144\,000 * 28) / 1024 \text{ Bytes} = 7\,168\,000 \text{ Blocks}$ (With a block size of 1 kB)

2)

(a)

$107\,834\,590 - 256 = 107\,834\,334 \rightarrow$ Single indirect

$107\,834\,334 - 256^2 = 107\,768\,798 \rightarrow$ Double indirect

$107\,768\,798 - 256^3 = 90\,991\,582 \rightarrow$ Triple indirect

$90\,991\,582 - 4\,294\,967\,296 = - \dots \rightarrow$ The data block has to be there

(b)

$107\,834\,590 / 1\,024 = 105\,307 \text{ Blocks to skip}$

$107\,834\,590 \% 1\,024 = \text{Bytes to skip}$

Skip the first 105 307 blocks, after that, skip the remaining Bytes to get the exact position.

3)

4 Kb File size: ~16 TB

1 kB File Size: ~4 TB

4)

(a)

512 Bytes because of the maximum file size.