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Table: Universal coding algorithm comparison

Algorithm	Number of traverses	Asymptotic redundancy	codeword length for text (1)
2-traverse coding, Huffman code	2	$1 + K_1/n$	302
Enumerative coding	2	$\frac{M \log n + K_3}{2n}$	283
Adaptive coding (A)	1	$\frac{M \log n + K_4}{2n}$	291
Adaptive coding (D)	1	$\frac{M \log n + K_5}{2n}$	283

IF\_WE\_CANNOT\_DO\_AS\_WE\_WOULD\_WE\_SHOULD\_DO\_AS\_WE\_CAN

(1)

- 1 Complete the table on the previous slide with methods, described in the chapter 4. Use one of the popular standard archive programs on your sequence. Choose one of the following sequences for this problem:

who chatters to you will chatter about you  
шел козел с косою козой, шла коза с босым козлом  
либо дождик, либо снег, либо будет, либо нет  
на острую косу много и покосу! покоси-ка, коса!  
два щенка щека к щеке грызли щетку в уголке  
корабли лавировали, лавировали, да не вылачивали!  
не узнавай друга в три дня, узнавай в три года  
better late than never but better never late  
men make houses but women make homes  
кукушка хвалит петуха за то, что хвалит он кукушку  
четыре чертенка чертили черными чернилами чертеж  
can you can a can as a canner can can a can?  
early to bed and early to rise makes a man wise  
от умного научишься, от глупого разучишься  
do not trouble trouble until trouble troubles you!  
не имей сто рублей, а имей сто друзей

- 2 Will the methods, described in chapter 4 be effective with a Binary Memoryless Source (BMS). Check your hypothesis on a short sequence of ones and zeros with fixed probability of 1.
- 3 Consider a sound signal in the standard format of coded impulse modulation (16-bit signal samples, measured with 44100 Hz frequency). Are the algorithms, described in this chapter, suitable for compressing such data?