Ɇgů Űɇɛ ŬŰŬ Ŭɉ ɑɗɛ ɋůɋɠ

Ɇɨ ůŰɋɛŬŬɟ ɶɗɛɋůɋɠ

Å ȼɟ ɧ´ ɞɠŬɜŬ´ Ŭɟ ƔůŰŬůɋɠ Ŭɟ ɵɗɛɩ ɜ

Å Ʈ ƔɗŮůɨ ůŰɋɛŬŬɟ ɶɗɛɋůɋɠ ɤɢŮɵɛɗŬ ɓƔůɋ R

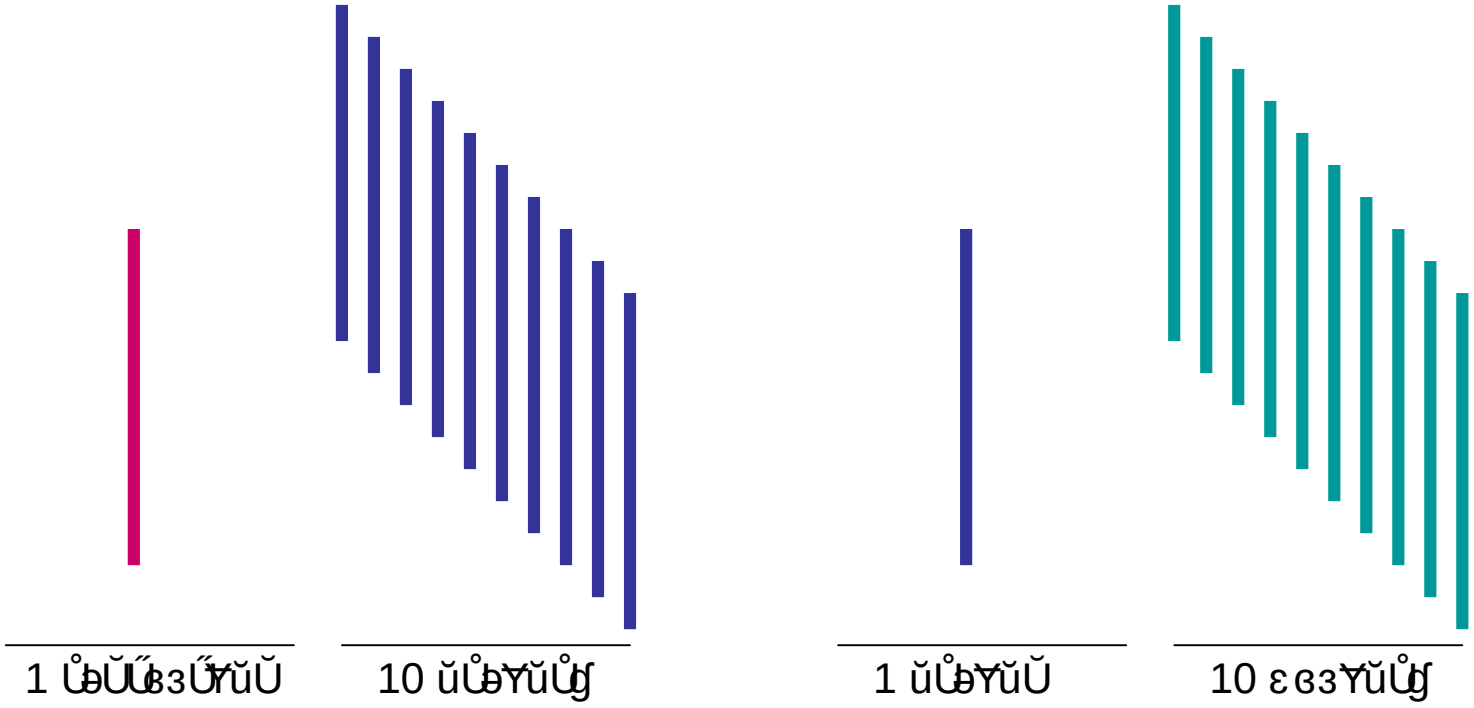
- ï ȼ ɓƔůɋ ŭŮɢɜŮɵ´ ɧůŮɠ ɛɞɜƔŭŮɠ ɛɵŬɠ ŰƔɝɋɠ űŰɵƔɢɜɞɡɜ ɛɵŬ ɛɞɜƔŭŬ Űɋɠ Ů ɧɛŮɜɋɠ ŰƔɝɋɠ
- ï ʐ ´ ɞɟ ŮɑɜŬ ŮɞŬɘR = 2, 3, é , 8, é , 10,é 16, é ɘɞɘ

Ɇɨ ůŰɖɛ Ŭ Ŭɟ ɑɗɛ ɖůɖɠ əŬɘ ɖəƚůəŰɟ ɞɜɘɞɑg´ ɞəɞɔɘůŰɏɠ

- Å ɥgŬŭɘɦ
  - ï ɄŮɟ ɜ¥Ůəɟ Ůɨ ɛŬ (1) ï ɥůɞ ´ Ůɟ ɜ¥Ůəɟ Ůɨ ɛŬ (0)
  - ï {0,1}
  - ï Bits
- Å Ƀ əŰŬŭɘɦ
  - ï 8 bits = 1 Byte
- Å ɥůəŬůɜŬŭɘɦ
  - ï 1 ŭůəŬůɜŬŭɘɦ ɣ ɖűɞ = 2 Bytes

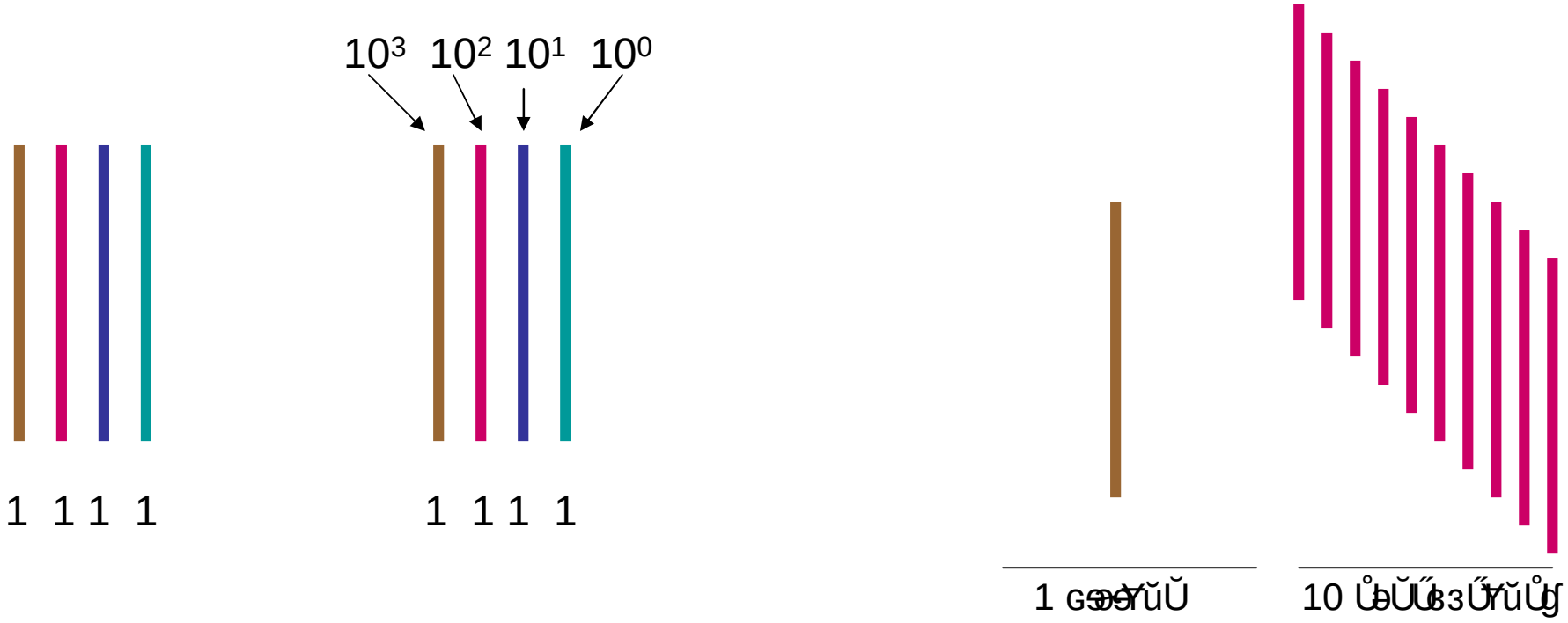
qdůəŮŭəh ůi ůŰdɛŮ Ůj odɛqůqg

Å R = 10



qpůəŮŭəh ůi ůŰqɛŮ Ůɟ œɛqůqg

Å R = 10



qdŮəŬŭəəɦ ůɨ ůŰqɛŬ Ŭɻ ɷdɛqůqg

Å R = 10

Å ɻ ɻ qůɘɛɞ´ ɞəəɨ ɜŰŬə10 ɣ qűɖŬ

ï ɹ ´ ɦ 0 ɣɤɤ g 9 (0,1,2,3,4,5,6,7,8,9)

Å ← ɞ Ŭɻ əɖɛɦgɾɛŮɔŬəɬ ɜŮə

ï 1568_{10}

Å ← ɞəɖɣůŮəgɾŬɻ əɖɛɞɨ ɜŰŬəɜŮəəɹ ɜŰŬgɾŬ´ ɦ Űə 0

Å ƒ ƳɖŮɖɣůq k Ůəűɻ ƳɛŮə´ æɖɞgɾ 10^{k}-Ƴŭɤɜ

ï $1*10^{3}$

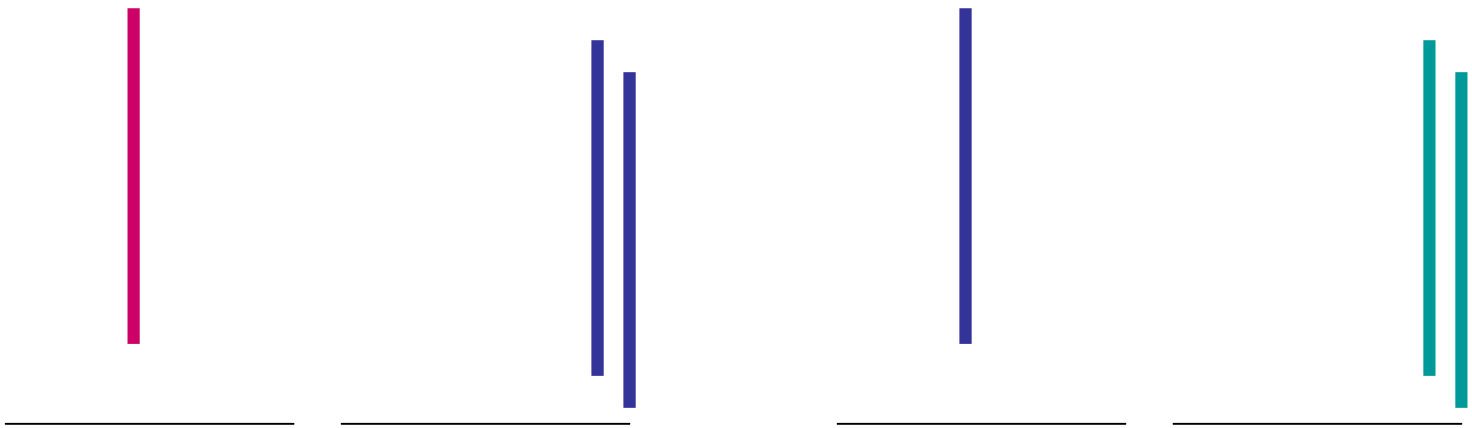
ï $5*10^{2}$

ï $6*10^{1}$

ï $8*10^{0}$

φgŬŭɘɦ ůɨ ůŰɖɛŬ Ŭɟ ɗɛɖůɖɠ

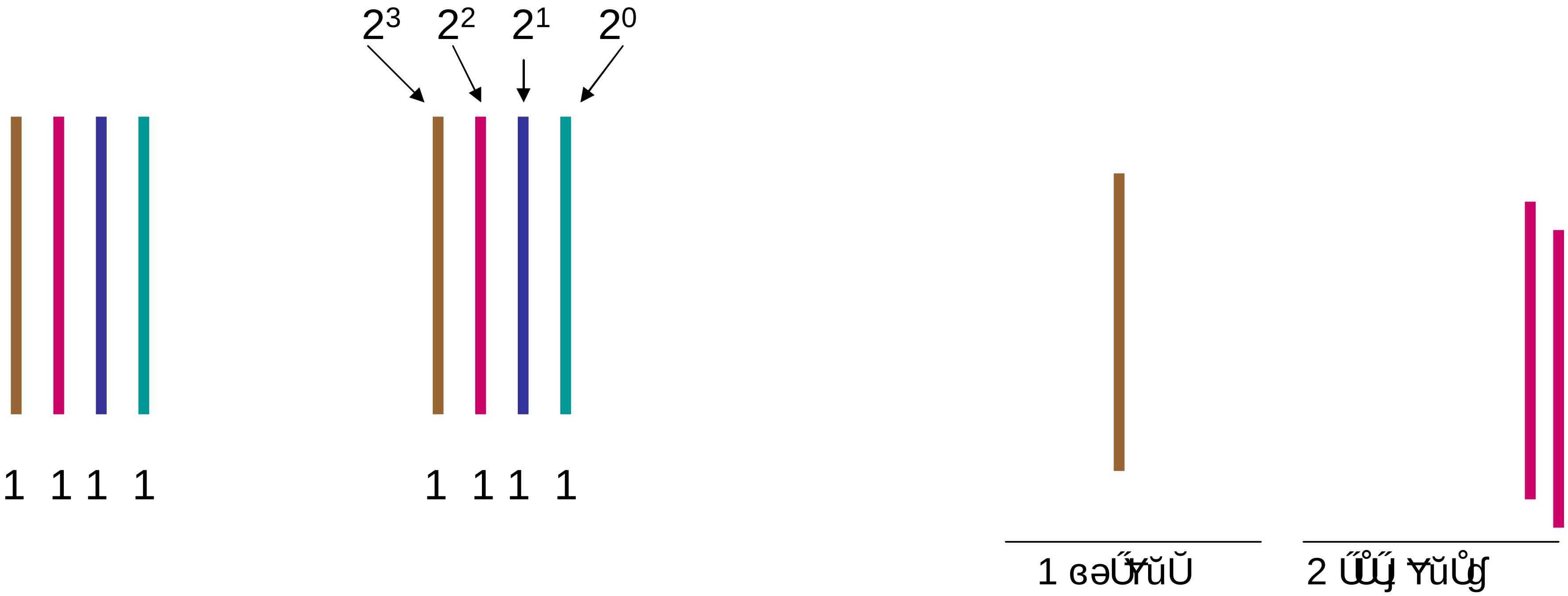
ÅR = 2



1 ŰůŰɟ ŦŭŬ   2 ŭgŦŭŮɠ   1 ŭgŦŭŬ   2 ɛɞɜŦŭŮɠ

ϙϩŬŭəəɧ ůɨ ůŰɖɛ Ŭ Ŭɟ ơɖɛɋůɖɠ

Å R = 2



qpgŬŭəɘɦ ůɨ ůŰdɛŬ Ŭɻ ɷdɛqůdg

Å R = 2

Å ɟ ɻ qůuəɛɞ´ ɞəɞɨ ɜŰŬə2 ɣ qűɑŬ

ï ɹ ´ ɦ 0 ɣɤɤ g 1 (0,1)

Å ← ɞ Ŭɻ əɷdɛɦgʃ ɛůɔŬəɬ ɜůə

ï 1101$_2$

Å ← ɞəɑɣůUůəgʃ Ŭɻ əɷdɛɞɨ ɜŰŬəɜůəəɜɩ ɜŰŬgʃŬ´ ɦ Űɞ 0

Å ƒ ƳɑůUɑɣůq k ůəűɻ Ƴɕůə´ æɛɑɞgʃ 2^k-Ƴŭɤɜ

ï 1*2^3

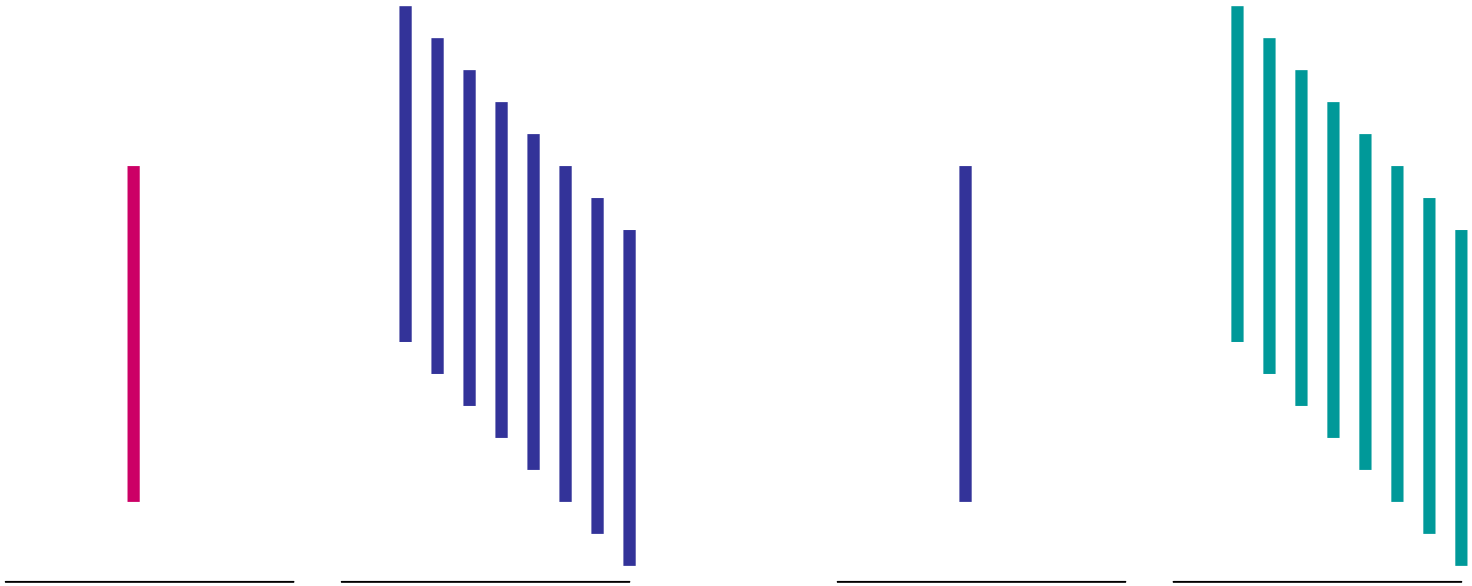
ï 1*2^2

ï 0*2^1

ï 1*2^0

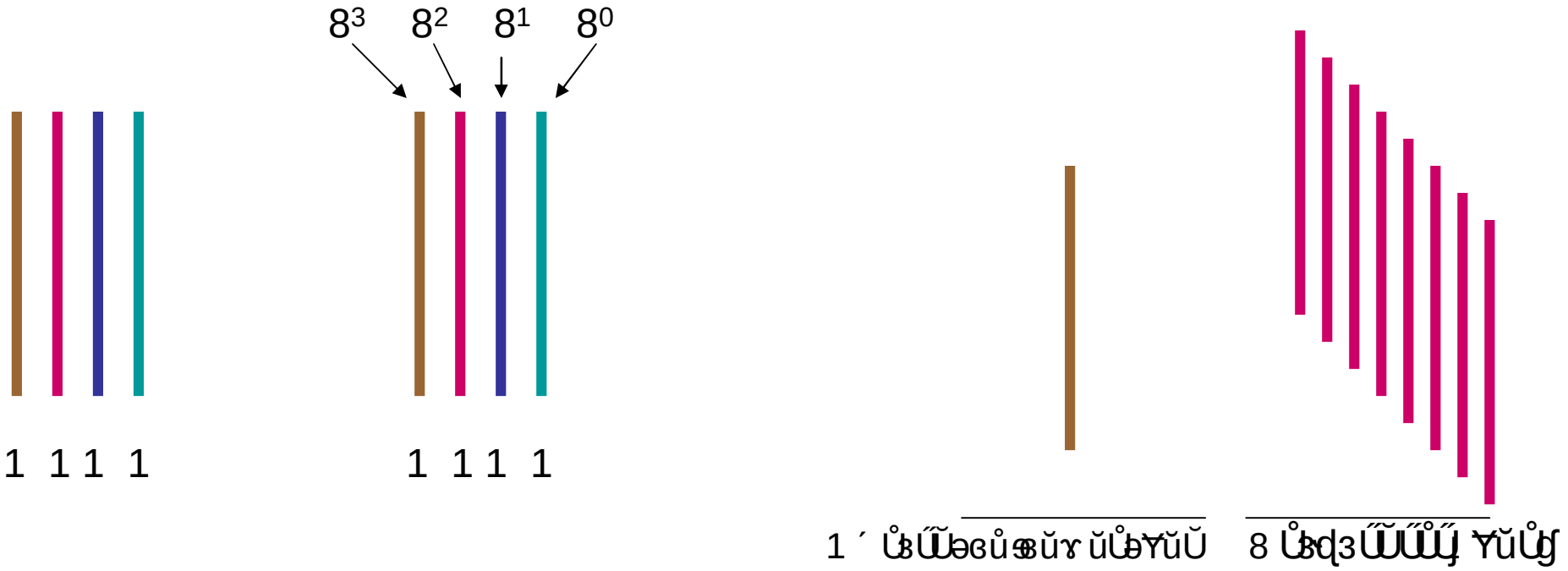
Ƀ əŰŰŭɘəɧ ůɨ ůŰɖɛ Ŭ Ŭɟ ɱɛɖůɖɠ

Å R = 8



Ƀəǖŭəɦ ůɨ ůǖɖɛŭ ŭɟ ɯɛɋůɖɠ

Å R = 8

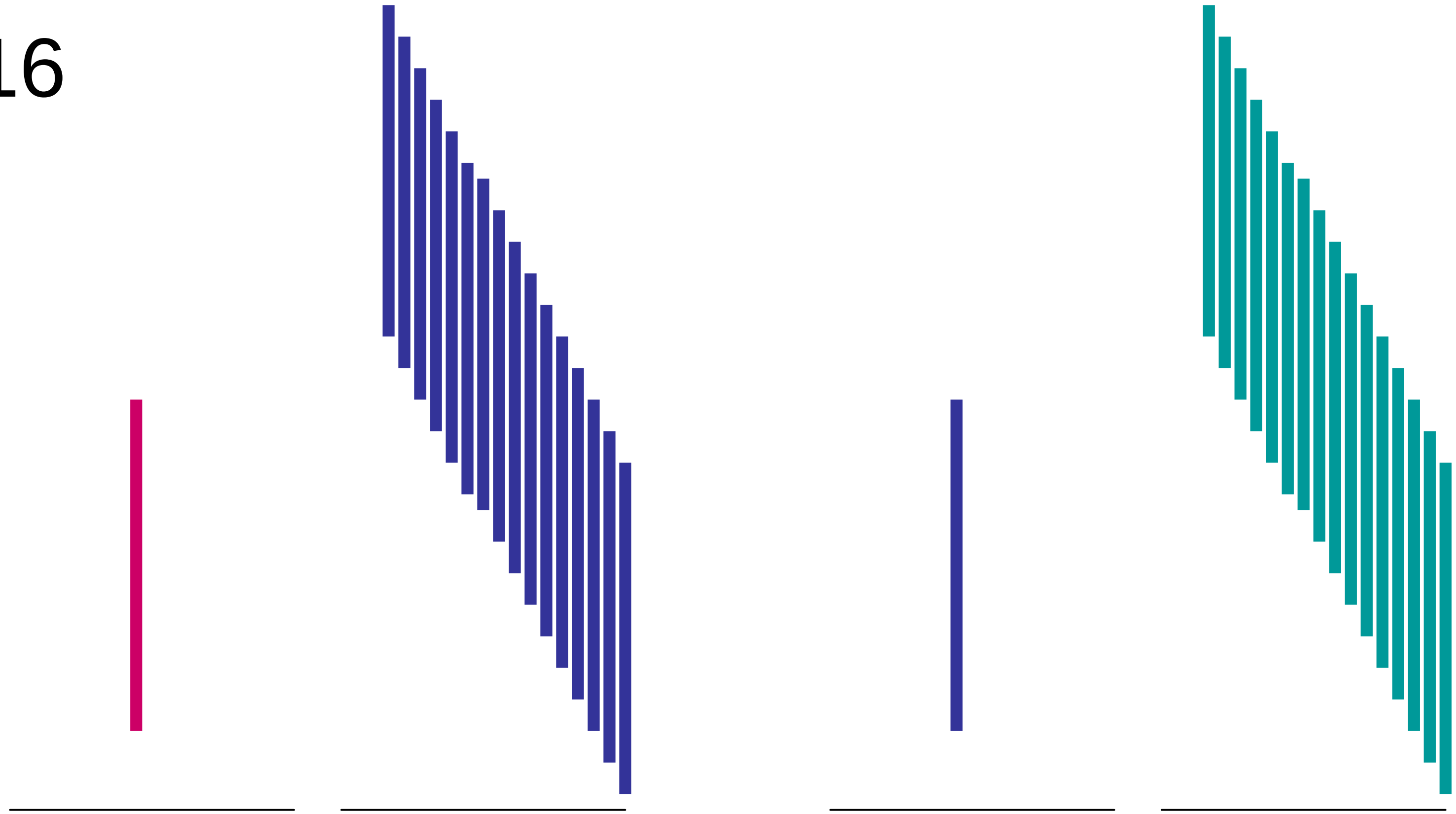


Ƀ əŰŬŭɘɧ ůɨ ůŰɖɛŬ Ŭɟ ɷɖɛɖůɖɠ

- R = 8
- ɟ ɟ ɖůɘɞɞ´ ɞɘɞɨ ɜŰŬɘ8 ɣ ɖűɗŬ
  - ȷ ´ ɧ 0 ɐɤ ɠ 7 (0,1,2,3,4,5,6,7)
- ← ɞ Ŭɟ ɘɗɛ ɧɠ ɛ Ůɔ Ŭɘɫ ɜŮɘ
  - 1567_8
- ← ɞɘɗɐůŮɘɠ Ŭɟ ɘɗɛ ɞɨ ɜŰŬɘɜŮɘɜɩ ɜŰɠ Ŭ´ ɧ Űɞ 0
- Ɉ ɎɗŮɗɐůɖ k Ůɘű ɟ ɎɕŮɘ´ ɚɐɗɞɠ 8^{k}-1 ŭɤ ɜ
  - 1*8^3
  - 5*8^2
  - 6*8^1
  - 7*8^0

ɸůɘŬůɜŬŭɘɧ ůɨ ůŰɖɛ Ŭ Ŭɟ ɷɛɖůɖɠ

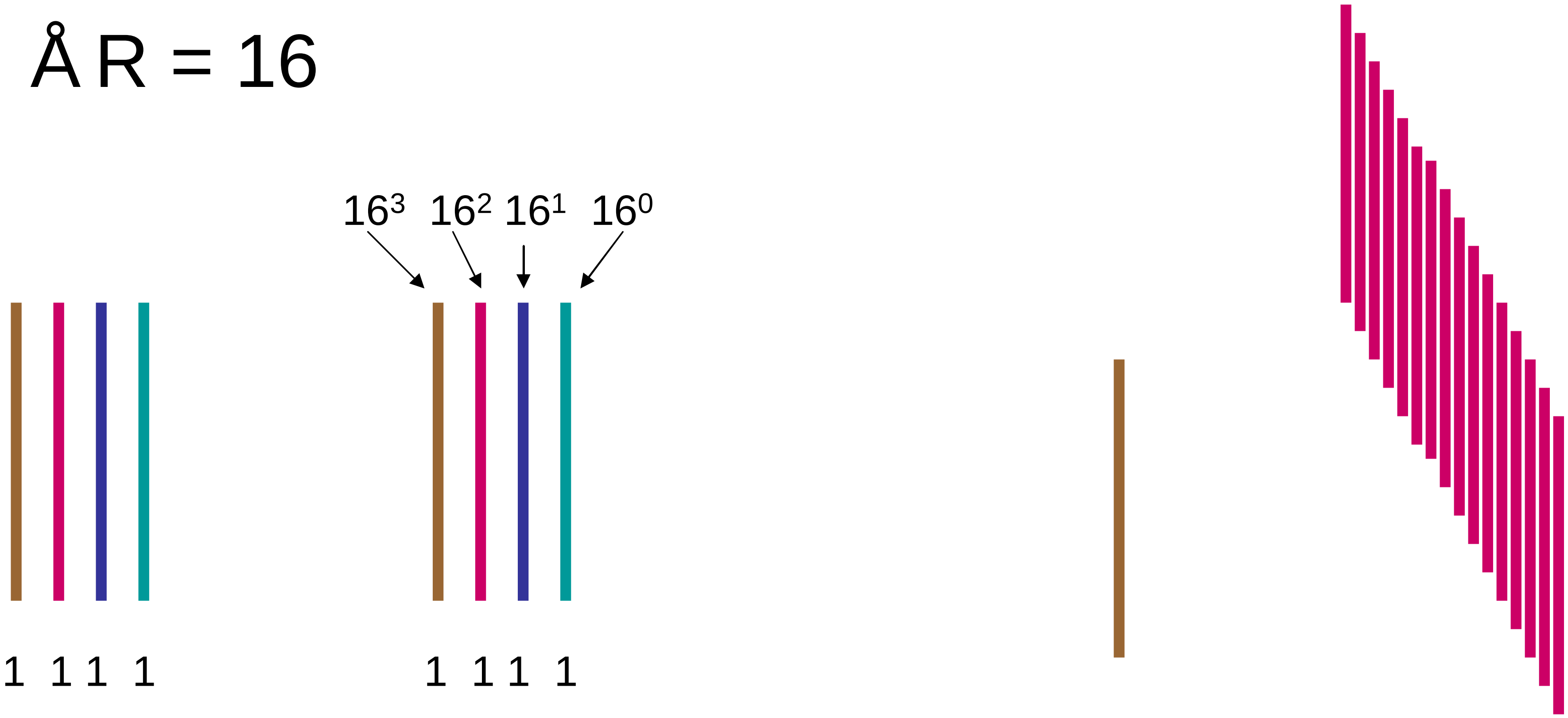
Å R = 16



1 ŭɘŬɘɞůɘ´ ůɜɖɜŰŬůɜŸŭŬ | 16 ŭůɘŬůɜŸŭůɠ | 1 ŭůɘŬůɜŸŭŬ | 16 ɛɞɜŸŭůɠ

ɋǘɟŬǘɜŬŭɘɧ ůɨ ůŰɖɛ Ŭ Ŭɟ ɕɖɛɖůɖɠ

Å R = 16



1 ñ4096ò-ƳŭŬ

16 ɋɘŬɘɜůɘ´ Ůɜɖɜ ŰŬ Ůɜ-ƳŭŮɠ

qdŮəŬŮɜŬŭɘəɦ ůɨ ůŰdɛŬ Ŭɻ ɷdɛqůqgʃ

Å R = 16

Å ɻ ɻ qůɘɛɕ´ ɕɘəɨ ɜŰŬə16 ɣ qűdŬ

ï ɹ ´ ɦ 0 ɣɤɤ gʃ Á (0,1,2,3,4,5,6,7,8,9,ɹ ,dɔC,D,E)

Å ← ɕ ŬɻɘɷdɛɦgʃɛŮɔŬəɬ ɜŮə

ï 1567_{16}

Å ← ɕədɣůŮəgʃ Ŭɻɘɷdɛɕɨ ɜŰŬəɜŮəɘɜı ɜŰŬgʃ Ŭ´ ɦ Űɕ 0

Å ƒ ƳdŮdɣůq k Ůəűɻ ƳɕŮə´ æɛdɕgʃ 16^{k}-Ƴŭɤɜ

ï $1*16^{3}$

ï $5*16^{2}$

ï $6*16^{1}$

ï $7*16^{0}$

ζ ŮŰŬŲ ɞ´ ɏɠ

- Å ȷ ´ ɧ
  - ï ɋɡŬŭɘɧ
  - ï Ƀ əŰŬŭɘɧ
  - ï ɋŮəŬŮɜŬŭɘɧ
- Å ɆŮŭŮəŬŭɘɧ

- Å ȷ ´ ɧ ŭŮəŬŭɘɧ
- Å ɆŮ
  - ï ɋɡŬŭɘɧ
  - ï Ƀ əŰŬŭɘɧ
  - ï ɋŮəŬŮɜŬŭɘɧ

J ´ ĥ ŭgŬŭəəĥ ůŮŭŮəŬŭəəĥ

Å J əəĥJ‡ əɗɛɞgɗ:

- ï J ‡ əɗɛɞi ɛŮŰəgɗ dƴůŮəgɗŰɞg ŭɞůɛ¥3ɞg Ŭ‡ əɗɛɞi Ŭ´ ĥ Ŭ‡ əůŰŮ‡ Ɣ´ ‡ ɞgɗŰŬ ŭŮɞəƳ3Ůəə3ı 3ŰŬgɗŬ´ ĥ Ű‰ 0
- ï Ʉɞəə◂Ŭ´ ə◂Ůůə¥ɾɞgɛŮŰ‰ ɣ qűɶ‰ ůŮə¥dŮdƴůq k ɛŮŰ‰ 2^{k}
- ï ɇɞ ɾqŰi ɛŮ3ɞ ´ ‡ ɞəi ´ ŰŮəŬd‡ ɞɶɞ3ŰŬgɗŰɔ3ĥɛŮ3Ŭ

ï ȳ ə◂Ůgɗɞəƴ ‡ Ɣ3◂Ůəgɗɔɶ3ɞ3ŰŬəůŰ‰ ŭŮəŬŭəəĥ ůi ůŰqɛŬ

ȷ ´ ɦ ŭgŬŭəɦ ůŮŭŮəŬŭəɦ

Ūɣůɋ 5	Ūɣůɋ 4	Ūɣůɋ 3	Ūɣůɋ 2	Ūɣůɋ 1	Ūɣůɋ 0
1	0	1	0	0	1
x 2^5	x 2^4	x 2^3	x 2^2	x 2^1	x 2^0
32	0	8	0	0	1
32+0+8+0+0+1=41 $\Rightarrow$ $101001_2=41_{10}$					

ȷ ´ ɧ ɞəŰŬŭɵɧ ůŮŭŮɵŬŭɵɧ

Å ȷ əɔɧɟ ɵɗɛɞɠ:

- ȷ ɟ ɵɗɛɞɨ ɛŮŰɵɠ ɗɏůŮɵɠ Űɞg ŭɞůɛɏɜɞg Ŭɟ ɵɗɛɞɨ Ŭ´ ɧ Ŭɟ ɵůŰŮɟ Ɏ ´ ɟ ɞɠ ŰŬ ŭŮɜɎ ɜŮɵɜɩ ɜŰŬɠ Ŭ´ ɧ Űɞ 0
- Ʉɞəɵ Ŭ´ əŬůɵɎɞgɛŮŰɞ ɣ ɖűɶ ůŮəɎɗŮɗɏůɖ k ɛŮŰɞ 8k
- ɇɞ ɕɖŰɞɨ ɛŮɜɞ ´ ɟ ɞəɨ ´ ŰɵŬɗɟ ɞɶɞɜŰɠ Ű ɔɵɧɛŮɜŬ

- ȳ əŮɠ ɞɘ´ ɟ Ɏɜ Ůɠ ɔɶɞɜŰɵůŰɞ ŭŮɵŬŭɵɧ ůɨ ůŰɖɛŬ

ȷ ´ ɧ ɞəŰŬŭɵɧ ůŮŭŮɵŬŭɵɧ

Ūɏůɖ 5	Ūɏůɖ 4	Ūɏůɖ 3	Ūɏůɖ 2	Ūɏůɖ 1	Ūɏůɖ 0
1	2	1	4	0	3
x 8^5	x 8^4	x 8^3	x 8^2	x 8^1	x 8^0
32768	8192	512	256	0	3
32768+8192+512+256+0+3=41731 $\Rightarrow$ $121403_8=41731_{10}$					

ȷ ´ ƒ ŭŮəŬŮɜŬŭɘəƒ ůŮŭŮəŬŭɘəƒ

Å ȷ əɔƒȷɟ ɘdɛɞgʃ:

- ï ȷ ɟ ɘdɛɞi ɛŮŰɘgʃ dɣůŮəgʃŰɞg ŭɞůɛɣɜɞg Ŭɟ ɘdɛɞi Ŭ´ ƒ Ŭɟ ɘůiŰŮɟ Ɣ´ ɟ ɞgʃŰŬ ŭŮɜɔɣ ɜŮəɜı ɜŰŬgʃŬ´ ƒ Ű ɞ 0
- ï Ʉɞəəɘŭ´ əŬůɔɣɾɞgɛŮŰɞ ɣ qűɑɞ ůŮəɣdŮdɣůq k ɛŮŰɞ 16^{k}
- ï ɾɞ ɾqŰɞi ɛŮɜɞ ´ ɟ ɞəi ´ ŰŮəŬdȷ ɞɑɾɞɜŰŬgʃŰŬɔɔɜƒɛŮɜŬ

- ï ȳ əŮgʃ ɞə´ ɟ ɣɜŮəgʃ ɔɑɞɞɜŰŬəůŰɞ ŭŮəŬŭɘəƒ ůi ůŰqɛŬ

J ´ ĥ ŭĹəŬĹəŬŭəĥ ůŮŭĹəŬŭəĥ

Ūɣůɋ 5	Ūɣůɋ 4	Ūɣůɋ 3	Ūɣůɋ 2	Ūɣůɋ 1	Ūɣůɋ 0
1	1	1	db	C	A
x 16^5	x 16^4	x 16^3	x 16^2	x 16^1	x 16^0
1048576	65536	4096	2816	192	10
1048576+65536+4096+2816+192+10=1121226 ⇒ $111BCA_{16}=1121116_{10}$					

ɋɐŬɡ Ůɩɋ

ɋɐŬɡ Ůɏɞɡ
(ŬgŰɲɡ´ ɞg
´ ɟ ɏ´ Ůɐ
ɜŬ ŭɐŬɡ ŮɗŮ)

ɋɐŬɡ ɏŰɖɡ

15	4
3	3

Ʉɖəɵɞ

ɟ´ ɧəɞə́ ɞ

J ´ ƒ ŭŮəŬŭəƒ ůŮŭgŬŭəƒ

Å J əɔƒJ ɟ ɘdɛɑgd:

- ï qpəŬəɟ ɑi ɛŮŰɑɜ ŬJ ɟ ɘdɛƒ ɛŮ2 əŬəəɟ ŬŰƳɛŮŰŬ
  g´ ƒJəɑɑé ŬɛƴGJ əŰɑ ´ d[əɑɘɑ ɜŬ ɔɑɜŮəɔ
- ï ɇɑ ɕd[Ű ɑi ɛŮɜɑ ´ J ɑəi ´ ŰŮəŭəŬbƳɕɑɜŰŬgŰŬ
  g´ ƒJəɑɑé ŬŬ´ ƒ Ű ɑ Ű ƴəɑgůŰd[ɜ ŬJ ɑɛ

- ÿ əŮgɑəé J Ƴ3ŮəgɔɑɑɑɜŰŬəůŰ ŭŮəŬŭəƒ
  ůi ůŰd[ɛŬ

ɹ ´ ɦ ŭŮəŬŭəɦ ůŮŭgŬŭəɦ

Å $155_{10} = 10011011_2$

Å 155: 2 = 77 əŬəg´ ɦəɞə ɞ 1
Å 77: 2 = 38 əŬəg´ ɦəɞə ɞ 1
Å 38: 2 = 19 əŬəg´ ɦəɞə ɞ 0
Å 19: 2 = 9 əŬəg´ ɦəɞə ɞ 1
Å 9: 2 = 4 əŬəg´ ɦəɞə ɞ 1
Å 4: 2 = 2 əŬəg´ ɦəɞə ɞ 0
Å 2: 2 = 1 əŬəg´ ɦəɞə ɞ 0
Å 1: 2 = 0 əŬəg´ ɦəɞə ɞ 1 ∉∄∧ζ ɹ ∉⊮ζ ƀ∉

J ´ ƒ ŭŮəŬŭəƒ ůŮɞəŰŬŭəƒ

Å J əɔƒJ ɟɷ∫ɛɞg:

- ï qpəŬəɟ ɞi ɛŮŰɞɜ ŬJ ɟɷ∫ɛƒ ɛŮ8 əŬəəɟ ŬŰƴɛŮŰŬ
  g´ ƒJəɞé ŬɛɣGJ əŰɞ ´ d[əɷɞɞ ɜŬ ɔɷɞŮəɔ
- ï ɇɞ ɷd[ŰɞiɛŮɜɞ ´ ɟ ɞəi ´ ŰŮəŭəŬbƴɷɞɜŰŬg ŰŬ
  g´ ƒJəɞé ŬŬ´ ƒ ŰɞŰɣəɞg ůŰd[ɜ ŬJ ɞɛ

- ï ȳ əŮgɞəé ´ ɟ ƴ3ŮəgɔɷɞɜŰŬəůŰɞ ŭŮəŬŭəƒ
  ůi ůŰd[ɛŬ

ɹ ´ ɦ ŭŮəŬŭəɦ ůŮɞəŰŬŭəɦ

Å $155_{10} = 233_{8}$

Å 155: 8 = 19 əŬəg´ ɦəɞə ɞ 3
Å 19: 8 = 2 əŬəg´ ɦəɞə ɞ 3
Å 2: 8 = 0 əŬəg´ ɦəɞə ɞ 2 ∉Ⱥ∧ⱬ ɹ ∉Ⱨⱬⱬ ⱭⱭ

ɹ ˊ ɧ ŭŮəŬŭɵɦ ůŮŭŮəŬŮɜŬŭɵɦ

Å ɹ əɔɧɟ ɵɖɛɞɠ:

- ï ɸɵŬɟ ɞɨ ɛŮŰɞɜ Ŭɟ ɵɖɛɧ ɛŮ16 əŬəəɟ ŬŰɎɛŮŰŬ
  ɡˊ ɧəɞə́ Ŭ ɛɏɢɟ əŰɞ ˊ ɖəɵɞ ɜŬ ɔɶŮə0
- ï ɇɞ ɕɖŰɞɨ ɛŮɞɞ ˊ ɟ ɞəɨ ˊ ŰŮəŭɵŬɓƔɕɞɜŰŬɠ ŰŬ
  ɡˊ ɧəɞə Ŭ Ŭˊ ɧ Űɞ Űɏəɞɠ ůŰɖɜ Ŭɟ ɢɐ

- ï ȳ əŮɠ ɞəˊ ɟ Ƴɜ̃Ůɵɠ ɔɶɞɜŰŬəůŰɞ ŭŮəŬŭɵɦ
  ůɨ ůŰɖɛŬ

ȷ ´ ɧ ŭŮəŬŭəɧ ůŮŭŮəŬŮɜŬŭəɧ

- 155_{10} = 9ȸ$_{16}$

- 155: 16 = 9 əŬəg´ ɧəɞɘ́ ɞ 11 (= ȸ)
- 9: 16 = 0 əŬəg´ ɧəɞɘ́ ɞ 9 ȼȺɅƺ ȷ ȼɄɆƺ ɃɆ

ȷ ´ ɧ ŭŮɤŬŭɘɧ ůŮŭgŬŭɘɧ &
g´ Ɏɟ ɢŮɵəŬɘəəŬůɛŬŰɵɧ ɛɏɟ ɞɠ

Å ȷ əɔɧɟ ɘɗɛɞɠ:

- ï ũɘŬŰɞ Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ (ɧ,Űɵ əŬə´ ɟ ɞ)
  - Å ɋɐŬɋ ɞɨ ɛŮŰɞɜ Ŭɟ ɘɗɛɧ ɛŮ2 əŬəəɟ ŬŰɎɛŮŰŬg´ ɧəɞɘ́ Ŭɛɏɢɟ əŰɞ ´ ɖəɞɞ ɜŬɔɞŮɵ0
  - Å ɇɞ ɕɖŰɞɨ ɛŮɞɞ ´ ɟ ɞəɨ ´ ŰŮɵŭɘŬɓɎɕɞɜŰŬɠ ŰŬg´ ɧəɞə́ ŬŬ´ ɧ Űɞ Űɏəɞɠ ůŰɖɜ Ŭɟ ɢɐ
- ï ũɘŬŰɞ əəŬůɛŬŰɵɧ ɛɏɟ ɞɠ
  - Å Ʉɞəə Ŭ´ əŬůɘɎɕɞgɛŮŰɞ əəŬůɛŬŰɵɧ ɛɏɟ ɞɠ ɛŮ2 əŬəŬ´ ɧ Űɞ ɔɞɧɛŮɞɞ əɟ ŬŰɎɛŮŰɞ Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ (Ŭ´ ɞɛŬəɟ ɨ ɜɞɜŰɎɠ Űɞ) ɛɏɢɟ əŰɞ əəŬůɛŬŰɵɧ ɛɏɟ ɞɠ ɜŬɔɞŮɵ0 ɔɘŬɧůŬɣ ɖűɖŬɛŬɠŮ ɘɟ ɏ´ ŮŰŬə
  - Å ɇɞ ɕɖŰɞɨ ɛŮɞɞ ´ ɟ ɞəɨ ´ ŰŮɵŭɘŬɓɎɕɞɜŰŬɠ ŰŬ Ŭəɏɟ Ŭɘ ɛɏɟ ɖ Ŭ´ ɧ Űɖɜ Ŭɟ ɢɐ ůŰɞ Űɏəɞɠ

- ï ȳ əŮɠ ɞə´ ɟ ɎɜŮɘɠ ɔɞɞɜŰŬəůŰɞ ŭŮɤŬŭɘɧ ůɨ ůŰɖɛŬ

ȷ ´ ɧ ŭŮƀŬŭǝɧ ůŮŭgŬŭǝɧ &
g´ Ɏɟ ɢŮəəŬəəəŬůɛ ŬŰǝɧ ɛɏɟ ɞɠ

- $155,16_{10}$ = 10011011,001010001é $_2$

- 155: 2 = 77 əŬəg´ ɧəɞə́ ɞ 1
- 77: 2 = 38 əŬəg´ ɧəɞə́ ɞ 1
- 38: 2 = 19 əŬəg´ ɧəɞə́ ɞ 0
- 19: 2 = 9 əŬəg´ ɧəɞə́ ɞ 1
- 9: 2 = 4 əŬəg´ ɧəɞə́ ɞ 1
- 4: 2 = 2 əŬəg´ ɧəɞə́ ɞ 0
- 2: 2 = 1 əŬəg´ ɧəɞə́ ɞ 0
- 1: 2 = 0 əŬəg´ ɧəɞə́ ɞ 1 ȼȺɅȥ ȷ ȼɄȥ ɃȺ

- 155_{10}=10011011_2

- 0,16 * 2 = 0,32 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0
- 0,32 * 2 = 0,64 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0
- 0,64 * 2 = 1,28 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 1
- 0,28 * 2 = 0,56 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0
- 0,56 * 2 = 1,12 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 1
- 0,12 * 2 = 0,24 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0
- 0,24 * 2 = 0,48 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0
- 0,48 * 2 = 0,96 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0
- 0,96 * 2 = 1,92 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 1
- é

- $0,16_{10}$=0,001010001é $_2$

ȷ ´ ɦ ŭŮəŬŭəɦ ůŮɞəŰŬŭəɦ &
g´ Ɏɟ ɢŮəəŬəəəŬůɛŬŰəɦ ɛɣɟ ɞgſ

Å ȷ əɔɦȷɟ əɗɛɞgſ:

- ï ũəŭŰəɞ ŬəɣɟŬəɞ ɛɣɟ ɞgſ (ɦ,ŰəəŬə´ ɟ əɜ)
  - Å qəŭəɟ ɞi ɛŮŰɞɜ Ŭɟ əɗɛɦ ɛŮ8 əŬəəɟ ŬŰɎɛŮŰŬg´ ɦəɞé Ŭɛɣɢɟ əŰɞ ´ dəɷɞ ɜŬɔɷŮəɜ
  - Å ɸɞ ɕdŰɞi ɛŮɜɞ ´ ɟ ɞəi ´ ŰŮəŭəŭbɎɕɜɜŰŬgŰŬg´ ɦəɞé ŬŬ´ ɦ Űɞ Ûɣəɞgſ ůŰdɜ Ŭɟ ɢɐ
- ï ũəŭŰəɞ əəŬůɛŬŰəɦ ɛɣɟ ɞgſ
  - Å Ʉɞəə Ŭ´ əŬůəɎɕɜgɛŮŰɞ əəŬůɛŬŰəɦ ɛɣɟ ɞgſ ɛŮ8 əŬəŬ´ ɦ Ű ɞ ɔəɜɦɛŮɜɞ əɟ ŬŰɎɛŮŰɞ ŬəɣɟŬəɞ ɛɣɟ ɞgſ (Ŭ´ ɞɛŬəɟ i ɜɞɜŰɎgſ Ű) ɛɣɢɟ əŰɞ əəŬůɛŬŰəɦ ɛɣɟ ɞgſ ɜŬɔɷŮəůŬɣ dűdŬɛŬgſŮ əɟ ɣ´ ŮŰŬə
  - Å ɸɞ ɕdŰɞi ɛŮɜɞ ´ ɟ ɞəi ´ ŰŮəŭəŭbɎɕɜɜŰŬgŰŬŬəɣɟ Ŭəŭɛɣɟ d Ŭ´ ɦ Ű dɜ Ŭɟ ɢɐ ůŰɞ Ûɣəɞgſ

- ȳ əŮgſ ɞə´ ɟ Ɏɜŭgſ ɔɷɞɞɜŰŬəůŰɞ ŭŮəŬŭəɦ ůi ůŰdɛŬ

ȷ ´ ɧ ŭŮɵŬŭɘɧ ůŮɞəŰŬŭɘɧ & ɡ´ Ɏɟ ɢŮɵəŬɘəəŬůɛ ŬŰɘɧ ɛɏɟ ɞɠ

Å 155,16$_{10}$ = 233,001217270é $_{8}$

Å 155: 8 = 19 əŬɘɡ´ ɧəɞɘ́ ɞ 3

Å 19: 8 = 2 əŬɘɡ´ ɧəɞɘ́ ɞ 3

Å 2: 8 = 0 əŬɘɡ´ ɧəɞɘ́ ɞ 2 ȼȺɅɀ ȷ ȼɄȻɀ ɃȻ

Å 155$_{10}$=233$_{8}$

Å 0,16 * 8 = 0,02 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0

Å 0,02 * 8 = 0,16 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0

Å 0,16 * 8 = 1,28 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 1

Å 0,28 * 8 = 2,24 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 2

Å 0,24 * 8 = 1,92 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 1

Å 0,92 * 8 = 7,36 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 7

Å 0,36 * 8 = 2,88 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 2

Å 0,88 * 8 = 7,04 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 7

Å 0,04 * 8 = 0,32 Ŭəɏɟ Ŭɞ ɛɏɟ ɞɠ 0

Å é

Å 0,16$_{10}$=0,001217270é $_{8}$

ȷ ´ ɧ ŭŮɵŬŭɚɧ ůŮŭŮɵŬŮɜŬŭɚɧ &
ɡ´ Ɏɟ ɢŮɵəŬɘəɚŬůɛŬŰɚɧ ɛɏɟ ɞɠ

Å ȷ əɔɧɟ ɚɗɛɞɠ:

- ï ũɚŬ Űɞ Ŭəɏɟ Ŭɚɞ ɛɏɟ ɞɠ (ɧ,Űɵəٞəˊ ɟ ɚɞ)
  - Å ɋɚŬɟ ɞɨ ɛŮŰɞɜ Ŭɟ ɚɗɛɧ ɛŮ16 əŬɵəɟ ŬŰɎɛŮŰŰ ɡ´ ɧəɞə Ŭ ɛɏɢɟ ɘŰɞ ´ ɖəɵɞ ɜŬ ɔɞɞŮɵ0
  - Å ɇɞ ɕɖŰɞɨ ɛŮɞɞ ´ ɟ ɞəɨ ´ ŰŮɵŭɚŬƃɎɕɞɜŰŰɠŰŰ ɡ´ ɧəɞə Ŭ Ŭ´ ɧ Űɞ Űɏəɞɠ ůŰɖɜ Ŭɟ ɢɐ
- ï ũɚŬ Űɞ əəŬůɛŬŰɚɧ ɛɏɟ ɞɠ
  - Å ɄɞəəŬ´ əŬůɚɎɕɞɡɛŮŰɞ əəŬůɛŬŰɚɧ ɛɏɟ ɞɠɛŮ16 əŬəŬ´ ɧ Űɞ ɔɞɧɛŮɞɞ əɟ ŬŰɎɛŮŰɞ Ŭəɏɟ Ŭɚɞ ɛɏɟ ɞɠ (Ŭ´ ɞɛŬəɟ ɨ ɜɞɜŰɎɠ Űɞ) ɛɏɢɟ ɘŰɞ əəŬůɛŬŰɚɧ ɛɏɟ ɞɠ ɜŬ ɔɞɞŮɵ0 ɔɚŬ ɧůŬɣ ɖűɗŬ ɛŬɠŮ ɚŰɟ ɏ´ ŮŰŰə
  - Å ɇɞ ɕɖŰɞɨ ɛŮɞɞ ´ ɟ ɞəɨ ´ ŰŮɵŭɚŬƃɎɕɞɜŰŰɠŰŰ Ŭəɏɟ ŬɚŬ ɛɏɟ ɖ Ŭ´ ɧ Űɖɜ Ŭɟ ɢɐ ůŰɞ Űɏəɞɠ

- ï ȳ əŮɠ ɞə´ ɟ ƳɜŮɚɠ ɔɞɞɜŰŰəůŰɞ ŭŮɵŬŭɚɧ ůɨ ůŰɖɛŬ

ȷ ´ ɧ ŭŮəŬŭəɧ ůŮŭŮəŬŮɜŬŭəɧ & ɡ´ ɎɈ ɢŮəəŬəəəŬůɛ ŬŰəɧ ɛɏɈ ɞɠ

- $155{,}16_{10}$ = 9ȸ,28E5C28E5Cé $_{16}$

- 155: 16 = 9 əŬəɡ´ ɧəɞə́ ɞ 11 (= ȸ)
- 9: 16 = 0 əŬəɡ´ ɧəɞə́ ɞ 9 ȼȺɅɀ ȷ ȼɄɆɀ ɃɆ

- 155_{10}=9ȸ$_{16}$

- 0,16 * 16 = 2,56 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 2
- 0,56 * 16 = 8,96 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 8
- 0,96 * 16 = 15,36 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 15 = Ⱥ
- 0,36 * 16 = 5,76 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 5
- 0,76 * 16 = 12,16 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 12 = C
- 0,16 * 16 = 2,56 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 2
- 0,56 * 16 = 8,96 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 8
- 0,96 * 16 = 15,36 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 15 = Ⱥ
- 0,36 * 16 = 5,76 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 5
- 0,76 * 16 = 12,16 Ŭəɏɉ Ŭɞ ɛɏɉ ɞɠ 12 = C
- é

- $0{,}16_{10}$=0,28E5C28E5Cé $_{16}$