

```
In[12]:= sifrat =
"ZNWOZMEUOJRIJNFKJHBZNPVZORRFVRI RNKLNKIHWPWCNGXFIZNFUJ JOMZRCVLJVFOGIEDSHTFKINOF AO
JAKHOCAYUAOJLIUFIEZGUAUZMDKFIEMEUNBLVRNZDSMNJHDVJRLPKZZHDRIEVAXQAGIFCVRRRBBOIQT
PDRZYA"; n = StringLength[sifrat]
```

Out[12]= 167

```
In[13]:= sifratbroj = ToCharacterCode[sifrat] - 65
```

```
Out[13]:= {25, 13, 22, 14, 25, 12, 4, 20, 14, 9, 17, 8, 9, 13, 5, 10, 9, 7, 1, 25, 13, 15, 20, 21,
25, 14, 17, 17, 5, 21, 17, 8, 17, 13, 17, 10, 13, 11, 10, 8, 7, 15, 22, 14, 2, 13, 6,
23, 5, 8, 25, 13, 5, 20, 9, 9, 14, 12, 25, 17, 2, 21, 11, 9, 21, 5, 14, 6, 8, 4, 3,
18, 7, 19, 5, 10, 8, 13, 14, 5, 0, 14, 9, 0, 10, 7, 14, 2, 0, 24, 20, 0, 14, 9, 11, 8,
20, 5, 8, 4, 25, 6, 20, 0, 20, 25, 12, 3, 10, 5, 8, 4, 12, 4, 20, 13, 1, 11, 21, 17,
13, 25, 3, 18, 12, 13, 9, 7, 3, 21, 9, 17, 11, 15, 10, 25, 25, 7, 3, 17, 8, 4, 21,
0, 23, 16, 0, 6, 8, 5, 2, 21, 17, 17, 17, 1, 1, 14, 8, 16, 19, 15, 3, 17, 25, 24, 0}
```

### Frekvencije slova i bigrama

```
In[14]:= frekvencija = {0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0};
For[i = 1, i <= n, i++,
  frekvencija[[sifratbroj[[i]] + 1]] = frekvencija[[sifratbroj[[i]] + 1]] + 1];
frekvencija
bigrami = {{}, {}, {}, {}, {}, {}, {}, {}, {}, {}},
  {}, {}, {}, {}, {}, {}, {}, {}, {}, {}, {}, {}, {}, {}, {}};
For[i = 1, i < n, i++, bigrami[[sifratbroj[[i]] + 1]] =
  Append[bigrami[[sifratbroj[[i]] + 1]], sifratbroj[[i + 1]]];
bigrami
```

Out[16]= {8, 4, 4, 6, 6, 10, 4, 6, 12, 10, 7, 5, 5, 11, 11, 4, 2, 14, 2, 2, 8, 8, 2, 2, 2, 12}

```
Out[19]= {{14, 10, 24, 14, 20, 23, 6}, {25, 11, 1, 14}, {13, 21, 0, 21},
{18, 10, 18, 21, 17, 17}, {20, 3, 25, 12, 20, 21}, {10, 21, 8, 20, 14, 10, 0, 8, 8, 2},
{23, 8, 20, 8}, {1, 15, 19, 14, 3, 3}, {9, 17, 7, 25, 4, 13, 20, 4, 4, 4, 5, 16},
{17, 13, 7, 9, 14, 21, 0, 11, 7, 17}, {9, 13, 8, 8, 7, 5, 25}, {10, 9, 8, 21, 15},
{4, 25, 3, 4, 13}, {22, 5, 15, 17, 11, 6, 5, 14, 1, 25, 9}, {25, 9, 17, 2, 12, 6, 5, 9, 2, 9, 8},
{20, 22, 10, 3}, {0, 19}, {8, 17, 5, 8, 13, 10, 2, 13, 11, 8, 17, 17, 1, 25},
{7, 12}, {5, 15}, {14, 21, 9, 0, 5, 0, 25, 13}, {25, 17, 11, 5, 17, 9, 0, 17},
{14, 14}, {5, 16}, {20, 0}, {13, 12, 13, 14, 13, 17, 6, 12, 3, 25, 7, 24}}
```

A | OKYOUXG

B | ZLBO

C | NVAV

D | SKSVRR

E | UDZMUV

F | KVIUOKAIIC

G | XIUI

H | BPTODD

I | JRHZENUUEEFQ

J | RNHJOVALHR

K | JNIIHFZ

L | KJIVP

M | EZDEN

N | WFPRLGFOBZJ

O | ZJRCMGFJCJI

P | UWKD

Q | AT

R | IRFINKCNLIRRBZ

S | HM

T | FP

U | OVJAFAZN

V | ZRLFRJAR

W | OO

X | FQ

Y | UA

Z | NMNONRGMDZHY

**Indeks koincidencije**

**$m = 1$**

0.0449463

**m = 2 -- > 2 podniza**

```
{25, 22, 25, 4, 14, 17, 9, 5, 9, 1, 13, 20, 25, 17, 5, 17, 17, 17,
 13, 10, 7, 22, 2, 6, 5, 25, 5, 9, 14, 25, 2, 11, 21, 14, 8, 3, 7, 5, 8, 14,
 0, 9, 10, 14, 0, 20, 14, 11, 20, 8, 25, 20, 20, 12, 10, 8, 12, 20, 1, 21, 13,
 3, 12, 9, 3, 9, 11, 10, 25, 3, 8, 21, 23, 0, 8, 2, 17, 17, 1, 8, 19, 3, 25},
{13, 14, 12, 20, 9, 8, 13, 10, 7, 25, 15, 21, 14, 17, 21, 8, 13, 10, 11, 8,
 15, 14, 13, 23, 8, 13, 20, 9, 12, 17, 21, 9, 5, 6, 4, 18, 19, 10, 13, 5, 14,
 0, 7, 2, 24, 0, 9, 8, 5, 4, 6, 0, 25, 3, 5, 4, 4, 13, 11, 17, 25, 18, 13,
 7, 21, 17, 15, 25, 7, 17, 4, 0, 16, 6, 5, 21, 17, 1, 14, 16, 15, 17, 24}}
```

0.0481928

0.041434

**m = 3 -- > 3 podniza**

```
{25, 14, 4, 9, 9, 10, 1, 15, 25, 17, 17, 13, 13, 8, 22,
 13, 5, 13, 9, 12, 2, 9, 14, 4, 7, 10, 14, 14, 10, 2, 20, 9, 20, 4, 20,
 25, 10, 4, 20, 11, 13, 18, 9, 21, 11, 25, 3, 4, 23, 6, 2, 17, 1, 16, 3},
{13, 25, 20, 17, 13, 9, 25, 20, 14, 5, 8, 17, 11, 7, 14, 6, 8, 5, 9, 25, 21, 21,
 6, 3, 19, 8, 5, 9, 7, 0, 0, 11, 5, 25, 0, 12, 5, 12, 13, 21, 25, 12, 7, 9, 15,
 25, 17, 21, 16, 8, 21, 17, 14, 19, 17}, {22, 12, 14, 8, 5, 7, 13, 21, 17, 21,
 17, 10, 10, 15, 2, 23, 25, 20, 14, 17, 11, 5, 8, 18, 5, 13, 0, 0, 14, 24, 14,
 8, 8, 6, 20, 3, 8, 4, 1, 17, 3, 13, 3, 17, 10, 7, 8, 0, 0, 5, 17, 1, 8, 15, 25}}
```

0.0457912

0.0511785

0.0464646

**m = 4 -- > 4 podniza**

```
{25, 25, 14, 9, 9, 13, 25, 5, 17, 13, 7, 2, 5, 5, 14, 2, 21, 8, 7, 8,
 0, 10, 0, 14, 20, 25, 20, 10, 12, 1, 13, 12, 3, 11, 25, 8, 23, 8, 17, 1, 19},
{13, 12, 9, 13, 7, 15, 14, 21, 13, 11, 15, 13, 8, 20, 12, 21, 5, 4, 19, 13,
 14, 7, 24, 9, 5, 6, 25, 5, 4, 11, 25, 13, 21, 15, 7, 4, 16, 5, 17, 14, 15},
{22, 4, 17, 5, 1, 20, 17, 17, 17, 10, 22, 6, 25, 9, 25, 11, 14, 3, 5, 14, 9,
 14, 20, 11, 8, 20, 12, 8, 20, 21, 3, 9, 9, 10, 3, 21, 0, 2, 17, 8, 3},
{14, 20, 8, 10, 25, 21, 17, 8, 10, 8, 14, 23, 13, 9, 17, 9, 6, 18, 10, 5,
 0, 2, 0, 8, 4, 0, 3, 4, 13, 17, 18, 7, 17, 25, 17, 0, 6, 21, 1, 16, 17}}
```

0.0414634

0.052439

0.0487805

0.0463415

**m = 5 -- > 5 podnizova**

```
{25, 12, 17, 10, 13, 14, 17, 10, 7, 13, 25, 9, 2,
 5, 3, 10, 0, 7, 20, 8, 25, 25, 8, 13, 13, 13, 9, 25, 8, 16, 2, 1, 19},
{13, 4, 8, 9, 15, 17, 8, 13, 15, 6, 13, 14, 21, 14, 18, 8, 14, 14, 0, 20, 6, 12,
 4, 1, 25, 9, 17, 25, 4, 0, 21, 1, 15}, {22, 20, 9, 7, 20, 17, 17, 11, 22, 23,
 5, 12, 11, 6, 7, 13, 9, 2, 14, 5, 20, 3, 12, 11, 3, 7, 11, 7, 21, 6, 17, 14, 3},
{14, 14, 13, 1, 21, 5, 13, 10, 14, 5, 20, 25, 9, 8, 19, 14, 0, 0, 9, 8, 0, 10, 4,
 21, 18, 3, 15, 3, 0, 8, 17, 8, 17}, {25, 9, 5, 25, 25, 21, 17, 8, 2, 8, 9, 17,
 21, 4, 5, 5, 10, 24, 11, 4, 20, 5, 20, 17, 12, 21, 10, 17, 23, 5, 17, 16, 25}}
```

0.0568182

0.0473485

0.0511364

0.0473485

0.0643939

**m = 6 -- > 6 podnizova**

```
{{25, 4, 9, 1, 25, 17, 13, 22, 5, 9, 2, 14, 7, 14, 10,
 20, 20, 20, 10, 20, 13, 9, 11, 3, 23, 2, 1}, {13, 20, 13, 25, 14, 8, 11,
 14, 8, 9, 21, 6, 19, 5, 7, 0, 5, 0, 5, 13, 25, 7, 15, 17, 16, 21, 14},
{22, 14, 5, 13, 17, 17, 10, 2, 25, 14, 11, 8, 5, 0, 14, 14, 8, 20, 8, 1, 3, 3, 10, 8, 0, 17, 8},
{14, 9, 10, 15, 17, 13, 8, 13, 13, 12, 9, 4, 10, 14, 2, 9, 4,
 25, 4, 11, 18, 21, 25, 4, 6, 17, 16}, {25, 17, 9, 20, 5, 17, 7, 6,
 5, 25, 21, 3, 8, 9, 0, 11, 25, 12, 12, 21, 12, 9, 25, 21, 8, 17, 19},
{12, 8, 7, 21, 21, 10, 15, 23, 20, 17, 5, 18, 13, 0, 24, 8, 6, 3, 4, 17, 13, 17, 7, 0, 5, 1, 15}}
```

0.042735

0.039886

0.0655271

0.045584

0.0569801

0.02849

**m = 7 -- > 7 podnizova**

```
{25, 20, 5, 15, 5, 10, 22, 8, 14, 9, 3, 13, 10, 0, 8, 25, 12, 17, 9, 15, 8, 6, 17},
{13, 14, 10, 20, 21, 13, 14, 25, 12, 21, 18, 14, 7, 14, 4, 12, 4, 13, 7, 10, 4, 8, 1},
{22, 9, 9, 21, 17, 11, 2, 13, 25, 5, 7, 5, 14, 9, 25, 3, 20, 25, 3, 25, 21, 5, 1},
{14, 17, 7, 25, 8, 10, 13, 5, 17, 14, 19, 0, 2, 11, 6, 10, 13, 3, 21, 25, 0, 2, 14},
{25, 8, 1, 14, 17, 8, 6, 20, 2, 6, 5, 14, 0, 8, 20, 5, 1, 18, 9, 7, 23, 21, 8},
{12, 9, 25, 17, 13, 7, 23, 9, 21, 8, 10, 9, 24, 20, 0, 8, 11, 12, 17, 3, 16, 17, 16},
{4, 13, 13, 17, 17, 15, 5, 9, 11, 4, 8, 0, 20, 5, 20, 4, 21, 13, 11, 17, 0, 17, 19}}
```

0.0355731

0.0632411

0.055336

0.0355731

0.0434783

0.0355731

0.0632411

**Medjusobni indeks koincidencije, MIC za m = 5**

```
{0.0501515, 0.0631212, 0.0366364, 0.0325455, 0.044303, 0.0520606,
0.0437879, 0.0386364, 0.0409697, 0.0451515, 0.0378182, 0.0339697,
0.036303, 0.0463636, 0.0349091, 0.0348182, 0.0407576, 0.0426364, 0.0456061,
0.0391818, 0.0467879, 0.0478788, 0.0369394, 0.0388788, 0.040303, 0.0384848}
```

```
niz1=1 MIC=0.0631212, 1, Z, 25
```

```
{0.0579394, 0.0435758, 0.0314545, 0.0404545, 0.0458182, 0.0500909,
0.0415758, 0.033303, 0.0373333, 0.0414242, 0.0316667, 0.0368788, 0.0448182,
0.0516667, 0.0386061, 0.0359394, 0.0380909, 0.0425758, 0.0445455,
0.0441515, 0.05, 0.0409091, 0.0484242, 0.030303, 0.0355455, 0.0519091}
```

```
niz1=2 MIC=0.0579394, 0, A, 0
```

```
{0.043, 0.0480606, 0.0430909, 0.0418182, 0.0408788, 0.0391212,
0.048697, 0.0417273, 0.0415758, 0.0404242, 0.035697, 0.0375455, 0.0418182,
0.0399697, 0.0421212, 0.0395152, 0.0347273, 0.0410909, 0.0354242,
0.0491818, 0.0385455, 0.0393636, 0.042303, 0.0622121, 0.0447576, 0.0363333}
```

```
niz1=3 MIC=0.0622121, 23, D, 3
```

```
{0.0633939, 0.0396667, 0.0290303, 0.0384545, 0.0510909, 0.0491818,
0.0383939, 0.0379091, 0.0389091, 0.0466364, 0.0356364, 0.0364242,
0.0459394, 0.0448788, 0.0376061, 0.0336364, 0.0427273, 0.042697, 0.0448485,
0.0395152, 0.0464545, 0.0447576, 0.0391515, 0.0370606, 0.0326364, 0.0523636}
```

```
niz1=4 MIC=0.0633939, 0, A, 0
```

```
{0.0398485, 0.0424545, 0.0413939, 0.0460303, 0.040303, 0.0488788,
0.0360606, 0.0252727, 0.0420303, 0.0722727, 0.0456364, 0.0279697,
0.0369697, 0.0480909, 0.0419091, 0.0399394, 0.045303, 0.0391515, 0.0402727,
0.0369697, 0.0372424, 0.046697, 0.0450909, 0.0440909, 0.0405758, 0.0385455}
```

```
niz1=5 MIC=0.0722727, 9, R, 17
```

```
kljuc = "ZADAR"
```

```
otvorenitekst =
```

```
"ANTOINEROSIGNOLJEIOPRVIPROFESIONALNIKRIPTOLOGUFRANCUSKOJZADVJEGODINESETOLIKOBOG
ATIOZAHVALJUJUCINAGRADAMAKOJEJEDOBIVAOZASVOJEDEKRIPTAZEDAJESAGRADIODVORACBLIZ "
```