

REBUS

qbasic c++ c# javascript python

Криптарифма Cryptarithm альфаметик alphametic
на языках qbasic python c# c++ JavaScript

Ребус Криптарифма где буквы заменяют цифры
решается на нескольких языках программирования

и есть программа составляющая программы
на языке высочайшего уровня бэйсик qbasic qb64

решающая дюжину цифро буквенных ребусов крипторифм
вида Ветка +Ветка =Дерево][74235 +74235 =148470

```
+VETKA ][ +74235
+VETKA ][ +74235
DEREVO ][ 148470
```

или за 5 минут переделывается на букв меньше
например УДАР + УДАР = ДРАКА 8126 + 8126 = 16252
и формула и знаки могут быть любые

Особенность: буквы крайние 0 быть не могут
что ускоряет алгоритм от +25% до +50%

Порядок букв в циклах на формулы не влияет
и возможны несколько решений или без решения

Криптарифма Rebus of Letters Cryptarithm

Ветка + Ветка = Дерево
VETKA + VETKA = DEREVO

Rebus qb64 qbasic

```
NN=8: Dim a(NN) ' DANILIN Rebus.bas of Letters
For V=1 To 9: a(1)=V: Print V;
  For E=0 To 9: a(2)=E ' jdoodle.com/a/6cSw
    For T=0 To 9: a(3)=T ' ВЕТКА+ВЕТКА=ДЕРЕВО
      For K=0 To 9: a(4)=K
        For A=1 To 9: a(5)=A

          For R=0 To 9: a(6)=R
            For O=0 To 9: a(7)=O
              For D=1 To 9: a(8)=D

                For ii=1 To NN - 1
                  For jj=ii + 1 To NN
                    If a(ii)=a(jj) Then GoTo 55
                  Next: Next

                VETKA = 10000*V + 1000*E + 100*T + 10*K + A
                DEREVO=D*100000 + E*10000 + R*1000 + E*100 + V*10 + O
                If VETKA + VETKA=DEREVO Then Print: Print VETKA,
                DEREVO
                55 Next: Next: Next: Next: Next: Next: Next: Next
            End
```

Rebus Python

```

nn=8; x=[1]; ff = 0 # rebus.py DANILIN
for i in range (0,nn+1):
    x[i]=x.append(i)

for v in range (7,10):
    x[1]=v; print(v, end='')
    for e in range (4,10):
        x[2]=e; print(e, end='')
        for t in range (0,10):
            x[3]=t; print(t, end=' ')
            for k in range (0,10):
                x[4]=k
                for a in range (1,10):
                    x[5]=a
                    for r in range (0,10):
                        x[6]=r
                        for o in range (0,10):
                            x[7]=o
                            for d in range (1,10):
                                x[8]=d

                                for ii in range (1,nn-1):
                                    for jj in range (ii+1,nn):
                                        if x[ii] == x[jj]:
                                            ff = 1

                                if ff == 0:
                                    vetka = 10000*v +1000*e +100*t +10*k+a
                                    derevo =
d*100000+e*10000+r*1000+e*100+v*10+o
                                    if vetka + vetka == derevo:
                                        print(" ", vetka, derevo)
                                ff=0

```

Rebus JavaScript js htm

```

<!DOCTYPE html> <html> <head> <meta charset="utf-8">
<title>Rebus of Letters JS</title> </head> <body>
http://jdoodle.com/h/2YH <script> var v,e,t,k,a,r,o,d;
var nn=8, x=[nn+1], ff = 0; var ii,jj, vetka, derevo

        for (v=1; v<=9; v++)
    { x[1]=v; document.write(v);
        for (e=0; e<=9; e++)
    { x[2]=e; for (t=0; t<=9; t++)
    { x[3]=t; for (k=0; k<=9; k++)
    { x[4]=k; for (a=1; a<=9; a++)
    { x[5]=a; for (r=0; r<=9; r++)
    { x[6]=r; for (o=0; o<=9; o++)
    { x[7]=o; for (d=1; d<=9; d++)
    { x[8]=d;

for (ii = 1; ii <= nn-1; ii++)
for (jj = ii+1; jj <= nn; jj++)
    if (x[ii] == x[jj]) { ff = 1; }

if (ff==0)
    { vetka = 10000*v +1000*e +100*t +10*k+a;
      derevo = d*100000+e*10000+r*1000+e*100+v*10+o;
      if (vetka + vetka == derevo)
        { document.write(" "+ vetka +" "+ derevo +" ");}
    }
ff=0 }} }} }} }}

</script> </body> </html>

```

Rebus C#

```

using System; using System.IO; // rebusx.cs DANILIN
namespace rebusx { class rebusx
{ static void Main(string[] args)

{ int v,e,t,k,a,r,o,d,ii,jj; int nn=8;
int[] x = new int[nn+1]; int vetka, derevo;

    for (v=1; v<=9; v++)
{ x[1]=v; Console.Write(v);
    for (e=0; e<=9; e++)
    { x[2]=e; for (t=0; t<=9; t++)
    { x[3]=t; for (k=0; k<=9; k++)
    { x[4]=k; for (a=1; a<=9; a++)
    { x[5]=a; for (r=0; r<=9; r++)
    { x[6]=r; for (o=0; o<=9; o++)
    { x[7]=o; for (d=1; d<=9; d++)
    { x[8]=d; // rextester.com/DDEQA74512

for (ii = 1; ii <= nn-1; ii++)
for (jj = ii+1; jj <= nn; jj++)
    if (x[ii] == x[jj]) { goto dav; }

vetka = 10000*v +1000*e +100*t +10*k+a;
derevo = d*100000+e*10000+r*1000+e*100+v*10+o;

if (vetka + vetka == derevo) // jdoodle.com/a/6cSu

    Console.WriteLine("\n {0} {1} ", vetka, derevo);
dav:; }} }} }} }}
Console.ReadKey();
}}}}

```

Rebus c++

```

#include <iostream> // rebusc.cpp DANILIN
using namespace std; int main()
{ setlocale (LC_ALL, "RUS"); srand(time(NULL));
int v,e,t,k,a,r,o,d,ii,jj; int nn=8;
int x[nn+1]; int vetka, derevo;

    for (v=1; v<=9; v++)
{ x[1]=v; cout << v; // jdoodle.com/a/6cSs
    for (e=0; e<=9; e++)
    { x[2]=e; for (t=0; t<=9; t++)
    { x[3]=t; for (k=0; k<=9; k++)
    { x[4]=k; for (a=1; a<=9; a++)
    { x[5]=a; for (r=0; r<=9; r++)
    { x[6]=r; for (o=0; o<=9; o++)
    { x[7]=o; for (d=1; d<=9; d++)
    { x[8]=d; // rextester.com/BLAZ43522

for (ii = 1; ii <= nn-1; ii++)
for (jj = ii+1; jj <= nn; jj++)
    if (x[ii] == x[jj]) { goto dav; }

vetka = 10000*v +1000*e +100*t +10*k+a;
derevo = d*100000+e*10000+r*1000+e*100+v*10+o;

if (vetka + vetka == derevo)
    cout << "\n" << vetka << " " << derevo << "\n";
dav:; }} }} }} }}
system("pause");
}

```

УДАР + УДАР = ДРАКА 8126 + 8126 = 16252

Python

```
nn=5; x=[1]; ff = 0 # drakap.py DANILIN
for i in range (0,nn+1):
    x[i]=x.append(i)

for u in range (1,10):
    x[1]=u; print(u, end='')
    for d in range (1,10):
        x[2]=d; print(d, end='')
        for a in range (0,10):
            x[3]=a; print(a, end=' ')
            for r in range (1,10):
                x[4]=r
                for k in range (0,10):
                    x[5]=k

    for ii in range (1,nn-1):
        for jj in range (ii+1,nn):
            if x[ii] == x[jj]:
                ff = 1

if ff == 0:
    udar = 1000*u +100*d +10*a+r
    draka = d*10000+r*1000+a*100+k*10+a
    if udar + udar == draka:
        print(" ", udar, draka)

ff=0
```

Python

<https://rextester.com/GAV77378>
<https://jdoodle.com/a/6dn5>

qbasic qb64

<https://jdoodle.com/a/6cSw>

JavaScript js

<https://jdoodle.com/h/2YH>

c#

<https://rextester.com/DDEQA74512>
<https://jdoodle.com/a/6cSu>

c++

<https://jdoodle.com/a/6cSs>
<https://rextester.com/BLAZ43522>

Cryptarithm alphametic

Puzzle where letters replace numbers is solved in several programming languages and there is a program that is a component of program in language of highest level basic qbasic qb64

solving a dozen alphanumeric puzzles cryptarithm or in 5 minutes it is redone by letters less and formula and signs can be any

Feature: letters extreme 0 can not be that accelerates algorithm from +25% to +50% order of letters in cycles does not affect formulas and several solutions are possible or without a solution