

# Sudokuløser til en TI83

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Her er så en revideret udgave af sudokuløseren. Det ændrede er, at denne gang virker den! Den består af to programmer SUDOKU og SUDOMASK. Når jeg engang får fat i et linkkabel, skal jeg nok lægge programmet ind i et ordentligt format, men indtil da er eneste mulighed for at få det ned på sin egen lommeregner, at skrive det hele af.

## 1 SUDOKU

```
Input "SUDOKUMATRIX=", [A]
```

```
Disp "INITIALISERER..."
```

```
{9,9}->dim([B])
```

```
{9,1}->dim([C])
```

```
{9,1}->dim([D])
```

```
{2,3,5,7,11,13,17,19,23}->L1
```

```
{1,1,1,4,4,4,7,7,7}->L2
```

```
{1}->L3:{1}->L4
```

```
{1}->L5:{1}->L6
```

```
1->N
```

```
Fill(1, [B])
```

```
0->P
```

```
For(I,1,9)
```

```
For(J,1,9)
```

```
[A](I,J)->X
```

```
If not(X=0)
```

```
Then
```

```
progmsUDOMASK
```

```
P+1->P
```

```
End
```

```
End
```

```
End
```

```
Disp "MASKE OPDATERET"
```

```

Lbl 1
Disp "TAL PLACERET:"
1->R
While R>0
0->R:9->D
Disp P

For(I,1,9)
For(J,1,9)
If [A](I,J)=0
Then

0->C
For(X,1,9)
If not([B](I,J)/L1(X)=int([B](I,J)/L1(X)))
Then
C+1->C
X->Q
End
End

If C=1
Then
Q->[A](I,J)
1+P->P
1+R->R
Q->X
prgmSUDOMASK
End

If C=0
Goto 2

If (C<D) and (C>1)
Then
C->D:I->F:J->G
End

End

If P=81
Then

```

```

Disp "DONE!","GEMT I [A]"
Stop
End

End
End

End
Goto 3

Lbl 2
Disp "TRAAD DØD"
For(M,N,1,-1)

If L3(M)>L4(M)
Then
L3(M)+1->L3(M)
M->dim(L3)
M->dim(L4)
2(M-1)+1->dim(L5)
sum(L4)->dim(L6)
{9,1+9(M-1)}->dim([C])
{9,1+9(M-1)}->dim([D])
M->N

0->P
For(I,1,9)
For(J,1,9)
[C](I,1+9(N-2)+J)->[A](I,J)
[D](I,1+9(N-2)+J)->[B](I,J)
If not([A](I,J)=0)
P+1->P
End
End

L6(sum(L4)-L4(N)+L3(N))->X
L5(2+2(N-2))->I
L5(3+2(N-2))->J
X->[A](I,J)
P+1->P
prgmSUDOMASK

ClrHome

```

```

Disp "NY TRAED:", "DYBDE", "NR   AF"
Output(2,7,N-1)
Output(3,4,L3(N))
Output(3,9,L4(N))
Goto 1
End
End
Disp "DUM SUDOKU"
Stop

Lbl 3
Disp "NYT GAET", "DYBDE:", N
augment(L3, {1})->L3
augment(L4, {D})->L4
augment(L5, {F,G})->L5
For(X,1,9)
If not([B](F,G)/L1(X)=int([B](F,G)/L1(X)))
Then
augment(L6, {X})->L6
End
End
{0,9}+dim([C])->dim([C])
{0,9}+dim([D])->dim([D])
For(I,1,9)
For(J,1,9)
[A](I,J)->[C](I,1+9(N-1)+J)
[B](I,J)->[D](I,1+9(N-1)+J)
End
End
N+1->N
F->I:G->J:L6(dim(L6)-D+1)->X
X->[A](I,J)
1+P->P
prgmSUDOMASK
Goto 1

```

## 2 SUDOMASK

```

For(A,1,9)
If not([B](I,A)/L1(X)=int([B](I,A)/L1(X)))
[B](I,A)*L1(X)->[B](I,A)

If not([B](A,J)/L1(X)=int([B](A,J)/L1(X)))

```

```
[B] (A, J)*L1(X)->[B] (A, J)
End

For(A,L2(I),L2(I)+2)
For(B,L2(J),L2(J)+2)
If not([B] (A,B)/L1(X)=int([B] (A,B)/L1(X)))
[B] (A,B)*L1(X)->[B] (A,B)
End
End

Return
```