 TEXAS INSTRUMENTS				
495				
(method 1)				(method 2)
Number				Number

=====

4 9 5

Kaprekar constant

=====

Enter a 3-digit number including at least one
differs from the others then

either [A] (method 1)

either [E] (method 2)

M E T H O D 1

The program

sort the 3 digits in descending order to get
a first number abc,

sort the 3 digits in ascending order to get a
second cba number,

subtracts the second number from the first,
use the result as a fresh start

... etc ...

up to 495!

M E T H O D 2

The program

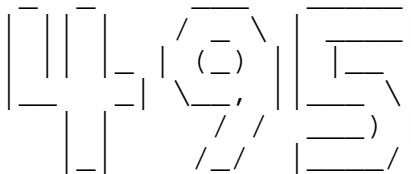
sort the 3 digits in descending order to get
a first number abc,

calculate the next number = $99a - 99c$)

use this result as a fresh start

... etc ...

up to 495!





```

//##### NUMBER - METHOD 1 #####
LBL A
CMS
STO 09
LBL A'
C'

// ===== 1ST NUMBER =====
( RCL 01 * 1 0 0 ) + ( RCL 02 * 1 0 ) + RCL 03 =
STO 07

// ===== 2ND NUMBER =====
( RCL 03 * 1 0 0 ) + ( RCL 02 * 1 0 ) + RCL 01 =
STO 08 ADV OP 26
RCL 06 PRT
2 0 0 0 0 0 0 0 OP 04
RCL 08 OP 06
6 4 0 0 0 0 0 0 OP 04
RCL 07 OP 06
OP 00
RCL 08 - RCL 07 =
OP 06
X/T 4 9 5 X/T STO 09
INV EQ A'
CMS
R/S

// ##### NUMBER - METHOD 2 #####
LBL E
CMS
STO 09
LBL E'
C'

// ===== 1ST NUMBER =====
RCL 03 * 9 9 =
STO 07

// ===== 2ND NUMBER =====
RCL 01 * 9 9 =
STO 08 ADV OP 26
RCL 06 PRT
RCL 07 - RCL 08 =
OP 00
OP 06
X/T 4 9 5 X/T STO 09
INV EQ E'
CMS
R/S

// ##### COMMON AREA #####
LBL C'
3 INV LOG INV PRD 09

// ===== DISTRIBUTION =====
3 STO 00
LBL SQR
RCL 09 INV INT * 1 0 =
STO 09 INT ST* 00

```



DSZ 00 SQR

// ===== SORTING =====

3 STO 00

LBL COS

RC* 00 X/T 3 STO 05

LBL SIN

RC* 05

GE TAN EX* 00 ST* 05 RC* 00 X/T

LBL TAN

DSZ 05 SIN

DSZ 00 COS

RTN



L A B E L S		
001	11	A
006	16	A'
109	15	E
114	10	E'
161	18	C'
172	34	SQR
193	39	COS
201	38	SIN
214	30	TAN

Adr	Branch.
A'	104 67 EQ
C'	007 18 C'
C'	115 18 C'
COS	218 97 DSZ
E'	156 67 EQ
SIN	215 97 DSZ
SQR	186 97 DSZ
TAN	204 77 GE

Reg.	Instr.
00	169 42 STO
	184 72 ST*
	190 42 STO
	194 73 RC*
	206 63 EX*
01	210 73 RC*
	009 43 RCL
	047 43 RCL
02	124 43 RCL
	018 43 RCL
	040 43 RCL
03	025 43 RCL
	031 43 RCL
	116 43 RCL
05	198 42 STO
	202 73 RC*
	208 72 ST*
06	055 43 RCL
	135 43 RCL
07	028 42 STO
	082 43 RCL
	091 43 RCL
	122 42 STO
	138 43 RCL
08	050 42 STO
	068 43 RCL
	088 43 RCL
	130 42 STO
	141 43 RCL
09	003 42 STO
	101 42 STO
	111 42 STO
	153 42 STO
	166 49 PRD
	173 43 RCL
	181 42 STO

