

# Program Listing

```

~~R
{- Calculate current and voltage drop through multiple resistors in series
   Input: V(T) in X (stack)           I = V/R
        R(i) in Rxn (registers)
   Output: I(T) in X
          V(i) in Rxn  -}

0
ENTER
FOR
  CNT_INIT 1 # 0
  COUNT< 4
  FOR
    CNT_INIT 0 # 0
    COUNT< 10
    RCL CNTREF 1 CNTREF 0
    IF X<>0
      +
    ELSE
      CYCLE
    ENDIF
  NEXT 1
NEXT 1

{- R(T) now in X. Calculate I, duplicate it to Y, and use it to calc the V(i) -}
/
ENTER
FOR
  CNT_INIT 1 # 0
  COUNT< 4
  FOR
    CNT_INIT 0 # 0
    COUNT< 10
    RCL CNTREF 1 CNTREF 0
    *
    STO CNTREF 1 CNTREF 0
    DROP
    ENTER
  NEXT 1
NEXT 1

DROP

```

```

@@ R(T) initialized to 0.00 in X, V(T) pushed to Y
@@ R(T) pushed to Y, V(T) pushed to Z
@@ loop over rows 0 to 3
@@ Cnt1 = 0
@@ loop as long as Cnt1 is < 4
@@ loop over columns 0 to 9
@@ Cnt0 = 0
@@ loop as long as Cnt0 is < 10
@@ Pull R(i)(j)=R(Cnt1)(Cnt0) into X

@@ iteratively calc R(T) += R(i,j)

@@ silly example to show use of CYCLE instruction

@@ next column
@@ next row

@@ Drop duplicate I

```

# Program Keycodes: 67 bytes in total

```

KC_0
KC_ENTER
KCP_FOR
KCP_CNT_INIT KC_1      KCP_NUMSEP KC_0
KCP_CLESSN KC_4
KCP_FOR
KCP_CNT_INIT KC_0      KCP_NUMSEP KC_0
KCP_CLESSN KC_1      KC_0
KC_RCLREG KCP_CNT_REF KC_1      KCP_CNT_REF KC_0
KCP_IF KCP_XNOT0
KC_ADD
KCP_ELSE
KCP_CYCLE
KCP_ENDIF
KCP_NEXT KC_1
KCP_NEXT KC_1

KC_DIV
KC_ENTER
KCP_FOR
KCP_CNT_INIT KC_1      KCP_NUMSEP KC_0
KCP_CLESSN KC_4
KCP_FOR
KCP_CNT_INIT KC_0      KCP_NUMSEP KC_0
KCP_CLESSN KC_1      KC_0
KC_RCLREG KCP_CNT_REF KC_1      KCP_CNT_REF KC_0
KC_MULT
KC_STOREG KCP_CNT_REF KC_1      KCP_CNT_REF KC_0
KC_DROPX
KC_ENTER
KCP_NEXT KC_1
KCP_NEXT KC_1

KC_DROPX

```