

PSEUDOCODE QUESTION 2

CNT     NUMERIC(5)  
TVAL    NUMERIC(7)  
AVAL    NUMERIC(7)  
FAM1    CONSTANT 210  
FAM2    CONSTANT 220  
MAXV    NUMERIC(5)  
MINV    NUMERIC(5)

```
1  MOVE ZERO TO TVAL
2  MOVE ZERO TO CNT
3  MOVE ZERO TO MAXV
4  MOVE 99999 TO MINV
5  READ-IT. READ FILE
6    AT END GO TO EOJ
7  IF TRAN = FAM2
8    GO TO READ-IT
9  ENDIF
10 CNT = CNT + 1
11 IF VAL  MAXV
12   MOVE VAL TO MAXV
13 ENDIF
14 IF VAL  MINV
15   MOVE VAL TO MINV
16 ENDIF
17 ADD-IT. ADD VAL TO TVAL
18 GO TO READ-IT
19 EOJ. SUBT MINV FROM TVAL
20 SUBT MAXV FROM TVAL
21 CNT = CNT - 2
22 AVAL = TVAL/CNT
23 STOP
```

← Fill in the missing symbol

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INPUT:	TRAN	VAL
RECORD 1	210	23500
RECORD 2	210	10000
RECORD 3	210	33000
RECORD 4	220	74000
RECORD 5	220	86000
RECORD 6	220	62000
RECORD 7	210	150000
RECORD 8	210	50000
RECORD 9	220	60000
RECORD 10	210	44000

2A) What is the value of AVAL at the end?

2B) If REC#9 is changed to 210 for TRAN, what is the value of AVAL?

2C) If REC#9 is 220 for TRAN but line 7 is changed to IF TRAN = FAM1  
what is the value of AVAL?

SOLUTION FOR 2A

```
TVAL = 0000000
CNT = 00000
MAXV = 00000
MINV = 99999
READ 1 TRAN 210 VAL 23500
  CNT = 00001
  MAXV = 23500
  MINV = 23500
  TVAL = 0023500
READ 2 TRAN 210 VAL 10000
  CNT = 00002
  MAXV = 23500
  MINV = 10000
  TVAL = 0023500 + 10000 = 0033500
READ 3 TRAN 210 VAL 33000
  CNT = 00003
  MAXV = 33000
  MINV = 10000
  TVAL = 0033500 + 33000 = 0066500
READ 4 TRAN 220 VAL 74000
READ 5 TRAN 220 VAL 86000
READ 6 TRAN 220 VAL 62000
READ 7 TRAN 210 VAL 150000
  CNT = 00004
  MAXV = 50000 ** TRUNCATED TO 50000
  MINV = 10000
  TVAL = 0066500 + 150000 = 0216500
READ 8 TRAN 210 VAL 50000
  CNT = 00005
  MAXV = 50000
  MINV = 10000
  TVAL = 0216500 + 50000 = 0266500
READ 9 TRAN 220 VAL 60000
READ 10 TRAN 210 VAL 44000
  CNT = 00006
  MAXV = 50000
  MINV = 10000
  TVAL = 0266500 + 44000 = 0310500
EOJ
  TVAL = 0310500 - 10000 = 0300500
  TVAL = 0300500 - 50000 = 0250500
  CNT = 6 - 2 = 4
  AVAL = 0250500 / 4 = 0062625
STOP
```

SOLUTION FOR 2B

```
READ 8 TRAN 210 VAL 50000
  CNT = 00005
  MAXV = 50000
  MINV = 10000
  TVAL = 0216500 + 50000 = 0266500
READ 9 TRAN 210 VAL 60000
  CNT = 00006
  MAXV = 60000
  MINV = 10000
  TVAL = 0266500 + 60000 = 0326500
READ 10 TRAN 210 VAL 44000
  CNT = 00007
  MAXV = 60000
  MINV = 10000
  TVAL = 0326500 + 44000 = 0370500
EOJ
  TVAL = 0370500 - 10000 = 0360500
  TVAL = 0360500 - 60000 = 0300500
  CNT = 7 - 2 = 5
  AVAL = 0300500 / 5 = 0060100
STOP
```

SOLUTION FOR 2C

```
TVAL = 0000000
CNT = 00000
MAXV = 00000
MINV = 99999
READ 1 TRAN 210 VAL 23500
READ 2 TRAN 210 VAL 10000
READ 3 TRAN 210 VAL 33000
READ 4 TRAN 220 VAL 74000
    CNT = 00001
    MAXV = 74000
    MINV = 74000
    TVAL = 0074000
READ 5 TRAN 220 VAL 86000
    CNT = 00002
    MAXV = 86000
    MINV = 74000
    TVAL = 0074000 + 86000 = 0160000
READ 6 TRAN 220 VAL 62000
    CNT = 00003
    MAXV = 86000
    MINV = 62000
    TVAL = 0160000 + 62000 = 0222000
READ 7 TRAN 210 VAL 150000
READ 8 TRAN 210 VAL 50000
READ 9 TRAN 220 VAL 60000
    CNT = 00004
    MAXV = 86000
    MINV = 60000
    TVAL = 0222000 + 60000 = 0282000
READ 10 TRAN 210 VAL 44000
EOJ
    TVAL = 0282000 - 60000 = 0222000
    TVAL = 0222000 - 86000 = 0136000
    CNT = 4 - 2 = 2
    AVAL = 0136000 / 2 = 0068000
STOP
```