

RECOMP II USERS' PROGRAM NO. 1162

TITLE: MINUTEMAN COST REDUCTION CURVE BLOCK
COST COMPUTATION

CLASSIFICATION: General

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PURPOSE: To compute the total hours (or costs) for any
unit or block of consecutive units on a given cost
reduction curve and accumulate the results of
repeated computations.

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1. PURPOSE

To compute the total hours (or costs) for any unit or block of consecutive units on a given cost reduction curve and accumulate the results of repeated computations.

2. METHOD

Given the first and last unit numbers of a block, the total value is computed as follows:

$$T = K \left(X_2^{n+1} - \frac{X_1^{n+1}}{X_1 - 1} \right), \text{ where } T \text{ is the total}$$

cost for the block of consecutive units from X_1 to X_2 with a first unit cost of K and a learning percent equal to $10^{2+n \log 2}$ (or $n = \frac{\log \% - 2}{\log 2}$).

3. OPERATION

3.1 Set margin at 20 and tabs at 40, 52, and 64.

3.2 Press START 1.

The computer will zero the data area and type the heading and "First Unit Cost". Type in the first unit cost (enter all numbers with the space bar). Typewriter will then type "Percent Learning". Enter the percent learning. The typewriter will type the column headings and carriage return.

3.3 Set the sense switches for the desired output:

B on - Block cost
C on - Cum total
D on - Cum units

Any combination of sense switch settings is permissible and the setting can be changed at any time.

- 3.4 The computer is now ready to receive two numbers which are the first and last units of a block. After the two numbers have been entered the RECOMP will calculate the total cost for the block, add this value to the cumulative total, output the values indicated by the sense switches and carriage return in preparation for the next block.
- 3.5 The first unit cost and/or the percent learning can be changed at any time during the program by pressing the error reset button and START 2. Enter the numbers as called for by the typewriter and return to Step 4.
- 3.6 To zero the cumulative total cost and the units tally, press error reset and START 3. The computer returns to Step 4.

4. MEMORY USAGE

Program	0000 - 0207, 0660 - 0672
AN-037	0210 - 0267
AN-044	0270 - 0427
AC-007.1	0430 - 0457
AN-007.1	0460 - 0657

5. EXAMPLE

First Unit Cost 57000
Percent Learning 85

<u>FIRST AND LAST UNITS IN BLOCK</u>	<u>BLOCK COST</u>	<u>CUM TOTAL</u>	<u>CUM UNITS</u>
183 - 183	12872	12872	1
185 - 187	38469	51342	4
190 - 190	12759	64101	5
224 - 300	911958	976059	82
305 - 1000	6749170	7725229	778
1100 - 3600	17954763	25679992	3279
4000 - 5000	6081267	31761259	4280
5002 - 10000	27074969	58836227	9279

- NOTES: 1. Example was calculated with all sense switches "on".
2. Maximum number of digits in output is eight.