

24. Repetition using *PERFORM..TIMES*

The computer can be instructed to repeat a certain paragraph a number of times using *PERFORM .. TIMES*.

e.g. *PERFORM GET-STAFF-DETAILS 5 TIMES*.

It is also possible to make the computer process a group of consecutive paragraphs a given number of times.

e.g. *PERFORM GET-DETAILS THRU PRINT-DETAILS 5 TIMES*

where *GET-DETAILS* is the first paragraph in the sequence and *PRINT-DETAILS* is the last.

Example

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.....
DATA DIVISION.
WORKING-STORAGE SECTION.
01 STAFF-DETAILS.
    05 STAFF-NAME PIC A(20).
    05 ANNUAL-PAY PIC 9(5).
    05 WEEKLY-PAY PIC 9(3).

PROCEDURE DIVISION.
MAIN.
    PERFORM GET-STAFF-DETAILS
        THRU DISPLAY-PAYSLIP
        5 TIMES

    STOP RUN.
GET-STAFF-DETAILS.
    DISPLAY 'NAME ?' ACCEPT STAFF-NAME
    DISPLAY 'ANNUAL PAY (5 DIGITS)' ACCEPT
        ANNUAL-PAY.
CALCULATE-WEEKLY-PAY.
    DIVIDE ANNUAL-PAY BY 52 GIVING WEEKLY-PAY
DISPLAY-PAYSLIP.
    DISPLAY '*****'
    DISPLAY STAFF-NAME WEEKLY-PAY
    DISPLAY '*****'.
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Exercises

1. What would happen if paragraph *MAIN* in the Example Program were changed to:

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PERFORM GET-STAFF-DETAILS 5 TIMES
PERFORM CALCULATE-WEEKLY-PAY 5 TIMES
PERFORM DISPLAY-PAYSLIP 5 TIMES
STOP RUN.
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How does this differ from the example ? Which is correct for this particular program ?

2. Change the example program so that the computer *PERFORMS* a paragraph called *PRODUCE-PAYSLIP 5 times*; this paragraph in turn instructs the computer to carry out *GET-STAFF-DETAILS*, *CALCULATE-WEEKLY-PAY*, and *DISPLAY-PAYSLIP*.