PROGRAM FACTORIAL 0000010

CDC 5081

```
C     THIS PROGRAM COMPUTES THE FACTORIAL OF A GIVEN NUMBER              0000020
```

CDC 5081

```
      INTEGER N, FACT, I                                                0000030
```

CDC 5081

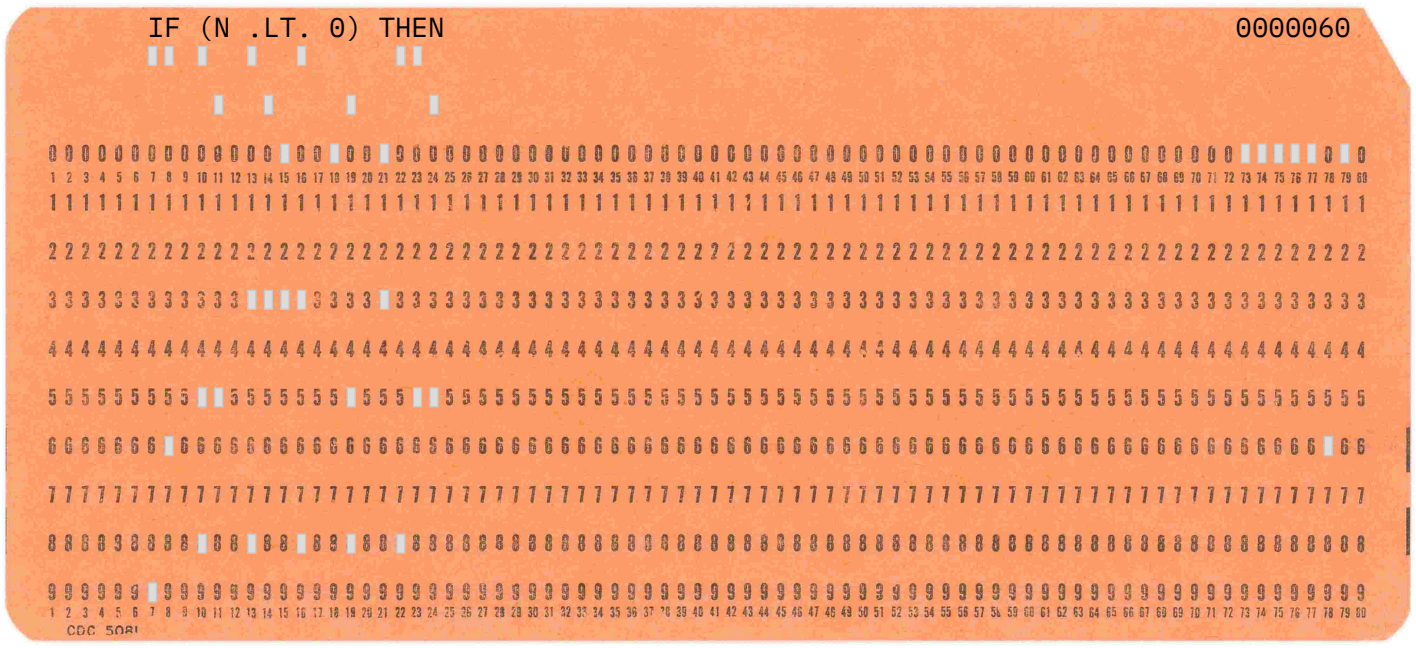
```
      PRINT *, 'ENTER A POSITIVE INTEGER:'                              0000040
```

CDC 5081

```
READ *, N                                                                0000050
```

CDC 5081

```
      IF (N .LT. 0) THEN                                                0000060
```



```
PRINT *, 'INVALID INPUT! MUST BE POSITIVE.'                          0000070
```

CDC 5081

STOP 0000080

CDC 5081

ENDIF 0000090

CDC 508

FACT = 1 0000100

CDC 5081

I = 1

0000110

CDC 5081

```
100 IF (I .GT. N) GOTO 200                                          0000120
```

CDC 5081

FACT = FACT * I 0000130

CDC 5081

```
      I = I + 1                                                         0000140
```

CDC 5081

GOTO 100 0000150

CDC 5081

200 PRINT 300, N, FACT 0000160

CDC 5081

```
C     OUTPUT THE RESULT                                                0000170
```

CDC 5081

```
300 FORMAT(' FACTORIAL OF ',                                          0000180
```

CDC 5081

& I4, 0000181

CDC 5081

& ' IS ',

0000182

CDC 5081

&  I10)  0000183

CDC 5081

C END OF PROGRAM 0000190

CDC 5081

END 0000200

CDC 5081