(#FFFF). A BY (BYte) error will occur if either argument of JOIN is not an 8-bit quantity.

The following example uses the OUT command described in Section 8 to show how useful MSBYTE and LSBYTE can be in process control.

Example:
Arnie Zintel of the Margarito Button Company uses an 8080 to control his button assembly line. He wants to send an increasing ramp to the digital to analog converter, which gets a 16-bit number in two 8-bit bytes from ports 0 and 1. He writes the following XYBASIC program:

```
NEW
10 DEF INT I
20 FOR I = 1 TO 1000
30 OUT 0,LSBYTE (I)
40 OUT 1,MSBYTE (I)
50 NEXT I
```

This program obtains the necessary 8-bit quantities with the MSBYTE and LSBYTE functions, which are then used as arguments of the OUT command.

GET

The GET function lets you check whether a character has been typed while a program is running. If a character has been typed, GET returns its ASCII value, as given in Appendix 5. GET returns 0 if no character has been typed. You can use GET to define control characters to monitor program execution without using <control-C> and CONT. The following simple example just increments the value in I, and prints its value whenever you type <control-T> (ASCII 20).

```
NEW
OK
10 IF GET=20 THEN GOSUB100
20 I = I + 1
30 GOTO 10
100 PRINTI;
110 RETURN
RUN
 46  100  126  169  183  201 ^C
BREAK AT LINE 20
OK
```

Since XYBASIC automatically removes the parity bit from any character it reads, you cannot GET a value greater than 127 (7F hexadecimal). And of course you should not try to GET characters such as <control-C> which have special meanings to XYBASIC.

You might want to use GET to let the user answer a question with Y or N. For example, the MOD program in Section 3 could be modified as follows: