The next lesson: !

<u>To reconstruct the data into 8 bit bytes.</u>

Why ?   So we can change the data to change the voice.

Remember to reconstitute the data only and not the exclusive (ie header.)

All values in Hex.
X = Don't care.

My formulas:

```
                  If data is 00 - 3F   no change
                  If data is 40 - 7F            01  XXXXXX  (binary)

                                                01  XXXXXX  (byte 1)

                                                01  01 0000 (byte 2 always = 50)


                  If data is 80 - BF            10  XXXXXX  (binary)

                                                01  XXXXXX  (byte 1)

                                                01  10 0000 (byte 2 always = 60)


                  If data is C0 - FF            11  XXXXXX  (binary)

                                                01  XXXXXX  (byte 1)

                                                01  11 0000 (byte 2 always = 70)
```

Examples:

4B = 4B and 50
9C = 5C and 60
CD = 4D and 70

Of course you will be converting two 7 bit bytes to one 8 bit byte.
(Split data to unsplit data).
If you do it right you should finish with 234 and 424 bytes Poly and Mono respectively.

Also you should take the 8 byte data and calculate the check sum. It will tell you all is OK. (The second to last byte should be the check sum)followed by F7.

My Turbo Pascal Code was something like:

```
Procedure OneByteToTwo;

Begin
DiskData[Count]:= ((MidiBuffer[Bufftail] AND $3F)OR $40);
INC(Count);
DiskData[Count]:= (((MidiBuffer[Bufftail] AND $C0) SHR 2) OR $40);
End;
```

Can't remember exactly but MidiBuffer=array of byte and BuffHead was the pointer. Anyway I'm sure you'll work it out.

```
Byte1:= (MIDIBuffer[BuffHead] AND $3F);
Dec(BuffHead);
Byte2:=(MidiBuffer[BuffHead] SHL 2);
MidiBuffer[BuffHead]:=(Byte1 OR Byte2);
```

Once you have the correct no of bytes you should be able to change bytes (I used a random no generator) calculate check sum, split the data then send it back.

(If you use random nos and vol=0 then you won't get any sounds).

Hope this makes sense...