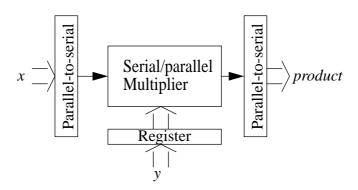
11.11 The bit-serial PE can be realized with a parallel-to-serial converter and a serial-to-parallel converter and a serial/parallel multiplier (assume that the word length for *x* is larger than that of *y*). The block diagram is shown below.



Bit-serial PE

The serial/parallel multiplier can be the same as in Figure 11.15.