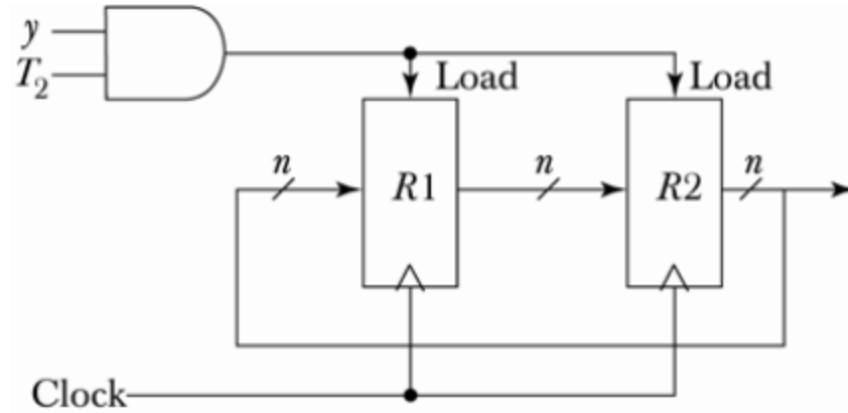**4.1**

4.3

P: R1 ← R2

P'Q: R1 ← R3

4.6

(a)   4 selection lines to select one of 16 registers.

(b)   16 × 1 multiplexers.

(c)   32 multiplexers, one for each bit of the registers.

4.8