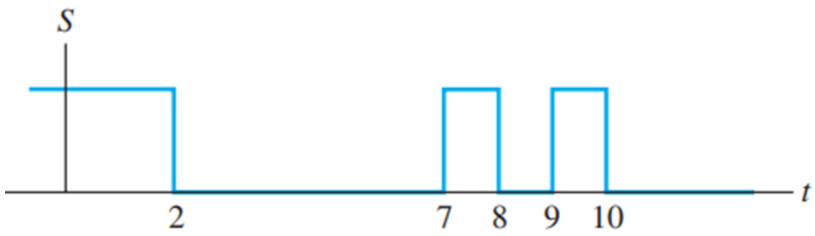
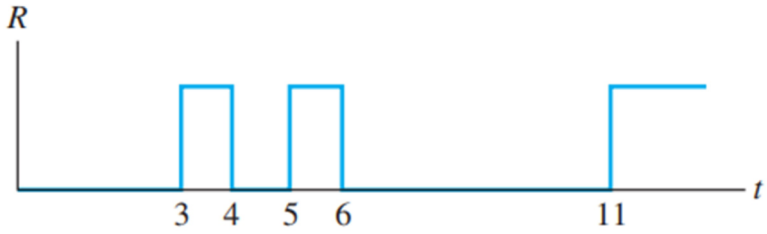
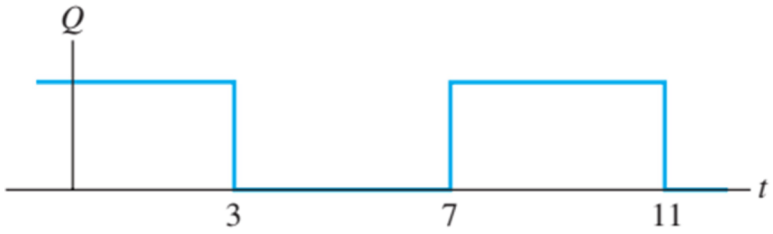
# Example 1 Flipflop

Wednesday, 2 September, 2020 10:00 AM



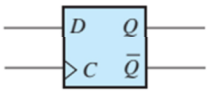

| $R$ | $S$ | $Q_n$ |
|---|---|---|
| 0 | 0 | $Q_{n-1}$ |
| 0 | 1 | 1 |
| 1 | 0 | 0 |
| 1 | 1 | Not allowed |

(a) Truth table

# Example 2

Wednesday, 2 September, 2020 10:11 AM

- The input signals to a positive-edge-triggered D flip-flop are shown in Figure. Sketch the output Q to scale versus time. (Assume that Q is low prior to t = 2.)




(a) Circuit symbol

| $C$ | $D$ | $Q_n$ |
|---|---|---|
| 0 | × | $Q_{n-1}$ |
| 1 | × | $Q_{n-1}$ |
| ↑ | 0 | 0 |
| ↑ | 1 | 1 |

(b) Truth table indicates a transition from low to high