## Passive Sign Convention for power

- $p > 0 \Rightarrow$ element absorbs power and $p < 0 \Rightarrow$ element supplies power

$$p = v(i) \qquad\qquad p = -(v)(i)$$
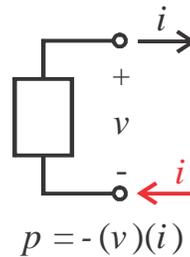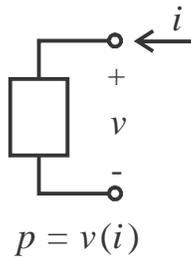
Examples-

a)
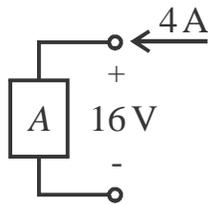
$p_A = 16(4) = 64\,\text{W}$ (element absorbs power)

b)
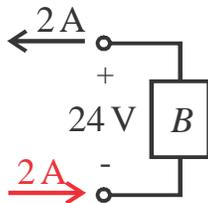
$p_B = -24(2) = -48\,\text{W}$ (element supplies power)

c)
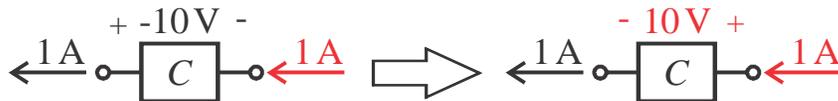
$p_C = -(-10)(1) = 10\,\text{W}$ **or** $p_C = 10(1) = 10\,\text{W}$ (element absorbs power)

d)
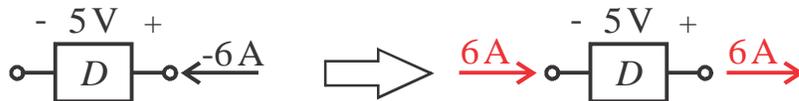
$p_D = 5(-6) = -30\,\text{W}$ **or** $p_D = -(5)(6) = -30\,\text{W}$ (element supplies power)

e)
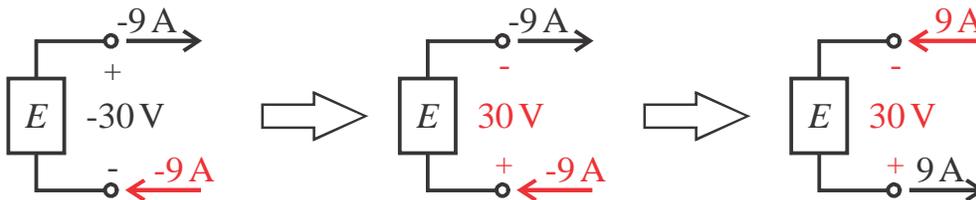
$p_E = -(-30)(-9) = -270\,\text{W}$ **or** $p_E = 30(-9) = -270\,\text{W}$ **or** $p_E = -(30)(9) = -270\,\text{W}$ (supplies power)