(1) In the circuit shown in Fig. 1.
Determine (a) $V_x$ and (b) the power absorbed by the 12-$\Omega$ resistor.

![Fig. 1](image)

(2) Using mesh analysis, find $v_\theta$ in the circuit in Fig. 2.

![Fig. 2](image)

(3) Find the Thevenin equivalent looking into terminals $a-b$ of the circuit in Fig. 3 and solve for $i_x$.

![Fig. 3](image)

(4) Three capacitors, $C_1 = 5 \mu F$, $C_2 = 10 \mu F$, and $C_3 = 20 \mu F$, are connected in parallel across a 150-V source. Determine:
(a) the total capacitance,
(b) the charge on each capacitor,
(c) the total energy stored in the parallel combination.