



$R_1 = 10 \Omega$	$R_2 = 15 \Omega$
$R_3 = 30 \Omega$	$R_4 = 25 \Omega$
$E_1 = 10 \text{ V}$	$E_2 = 30 \text{ V}$

- 1) What is the relationship between the magnitudes of the currents I_x and I_y ? [4]
 - a) $|I_x| > |I_y|$
 - b) $|I_x| = |I_y|$
 - c) $|I_x| < |I_y|$

- 2) What is the current I_2 through resistor R_2 ? (A positive value means current flows in the direction of the arrow on the diagram.) [5]

- 3) What is the voltage difference $V_A - V_B$ between points **A** and **B**? [5]

- 4) What is the current I_y ? (A positive value means current flows in the direction of the arrow on the diagram.) [6]