QUESTIONS ON THEVENIN/NORTON EQUIVALENTS.

Observe the differences between the following questions.

Ⓐ Find the Thevenin equivalent of the following circuit

Circuit A — terminals a, a'
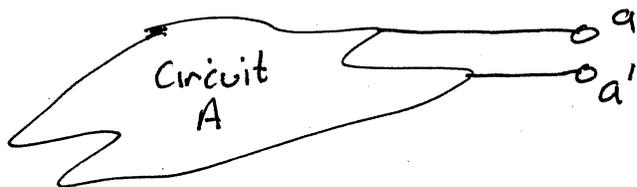
Ⓑ Use the Thevenin equivalent to find I_0.

Circuit B — terminals b, b', with resistor R and current I_0

Answer to Ⓐ
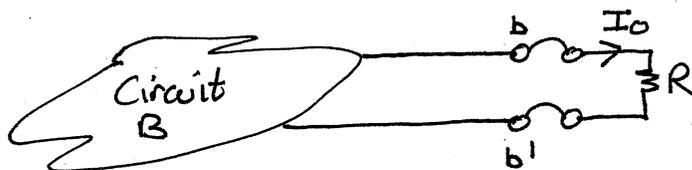
V_A source with resistor R_a, terminals a, a'
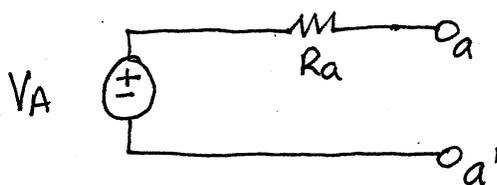
Circuit A and above are equivalent from the perspective of the terminals (a, a')

Answer to Ⓑ

V_B source with resistor R_B, terminals b, b', resistor R, current I_0
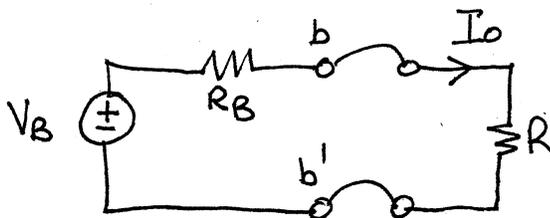
Circuit B and Thevenin equivalent look the same to the resistor

$$I_0 = \frac{V_B}{R_B + R}$$