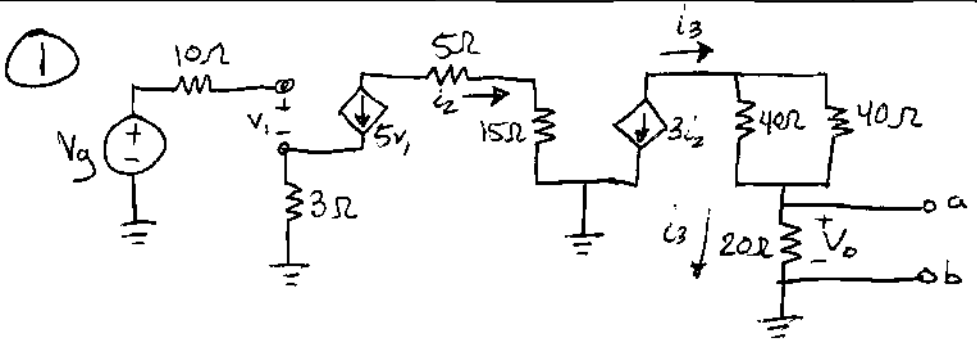
(1)



Find V_o:

$V_o = -3i_2(20\Omega)$

$i_2 = -5V_1$

$V_1 = V_g - (5V_1 \cdot 3\Omega)$

$V_1 = \frac{1}{16} V_g$

$i_2 = -\frac{5}{16} V_g$

$V_o = \frac{75}{4} V_g = 18.75 V_g$

Thevenin's Equivalent:

V_{th} = open circuit voltage = $V_o = 18.75 V_g$

$R_{th} = 20\Omega$ because with V_g off $i_2 = i_3 = 0$A leaving the only path between terminals a and be as the 20Ω resistor shown.