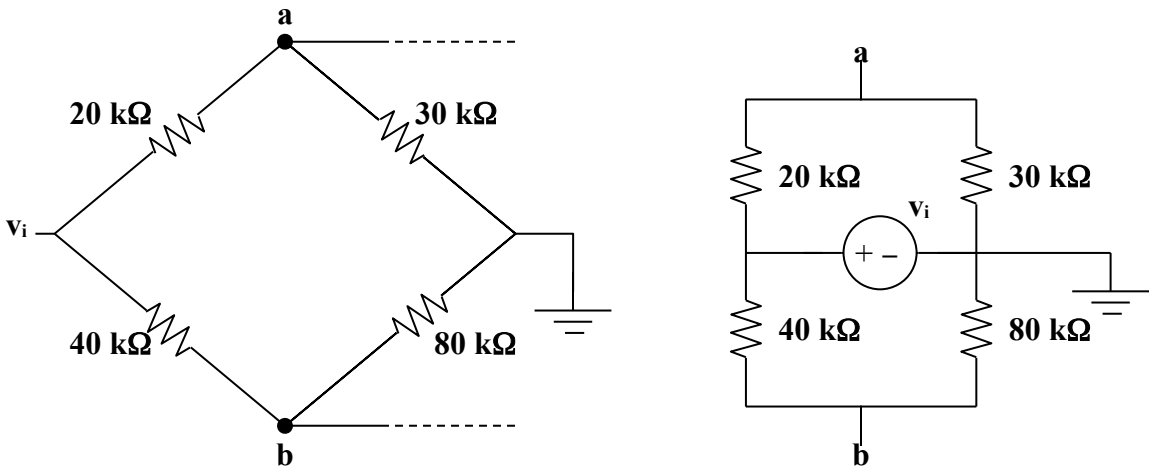
Chapter 5, Solution 88.

We need to find V_{Th} at terminals a – b, from this,

$$v_o = (R_2/R_1)(1 + 2(R_3/R_4))V_{Th} = (500/25)(1 + 2(10/2))V_{Th}$$

$$= 220V_{Th}$$

Now we use Fig. (b) to find V_{Th} in terms of v_i.



(a) **(b)**

$$v_a = (3/5)v_i, \quad v_b = (2/3)v_i$$
$$V_{Th} = v_b - v_a \quad (1/15)v_i$$
$$(v_o/v_i) = A_v = -220/15 = \mathbf{-14.667}$$