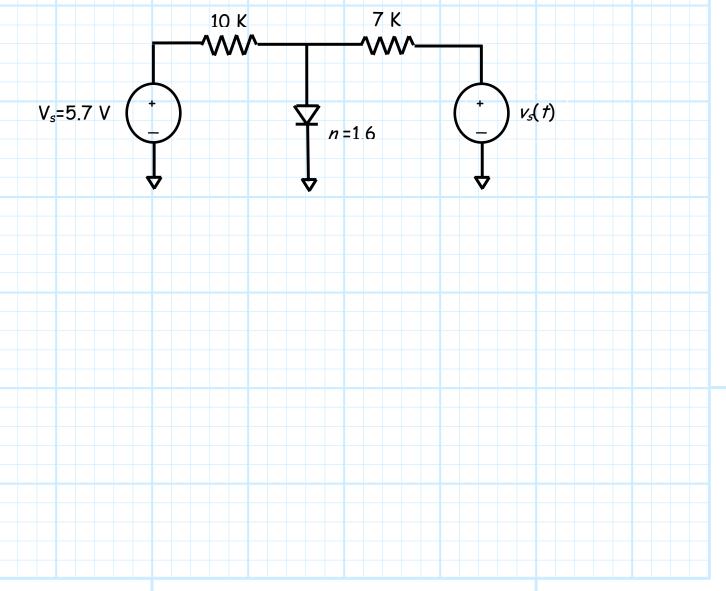
## Special Problem 3.3-8

The voltage source on the **left** side of the circuit below produces a d.c. voltage  $V_s$ =5.7 V.

The voltage source on the **right** side of the circuit below produces a **small a.c.** signal  $v_s(t)$ .

The junction diode has an ideality factor of n = 1.6

Determine the small-signal voltage across the diode, in terms of small-signal voltage source  $v_s(t)$ .



Jim Stiles The Univ. of Kansas Dept. of EECS