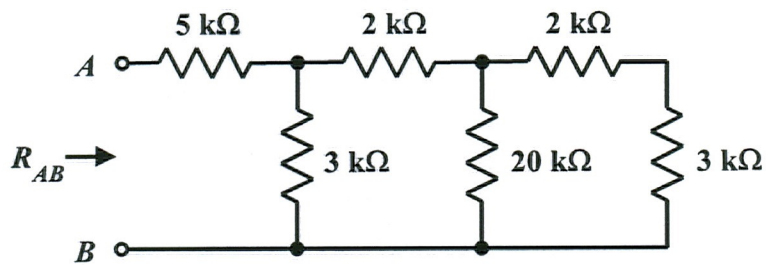


EE/EET 2240
Homework Problem #014

Determine R_{AB} , the equivalent resistance with respect to terminals A and B .



$$\begin{aligned} R_{AB} &= 5k\Omega + 3k\Omega \parallel [2k\Omega + 20k\Omega \parallel (2k\Omega + 3k\Omega)] \\ &= 5k\Omega + 3k\Omega \parallel [2k\Omega + 20k\Omega \parallel 5k\Omega] \\ &= 5k\Omega + 3k\Omega \parallel [2k\Omega + 4k\Omega] \\ &= 5k\Omega + 3k\Omega \parallel 6k\Omega \\ &= 5k\Omega + 2k\Omega \\ &= 7k\Omega \end{aligned}$$