

Example 2) If two cells with equivalent internal resistances 2 ohms are connected in parallel. What would be the value of the resistance of each cell if both have the same value?

Solution: Given

$$r_1 = r_2$$

$$\frac{1}{r_{eq}} = \frac{1}{r_1} + \frac{1}{r_2} \quad \frac{1}{2} = \frac{2}{r_1}$$

$$r_1 = 4 \Omega = r_2$$