

Lösungsansätze : 1. $\bar{I}_B$ (Basisströme) einzeichnen s. Skizze oben

$$2. U_n = \bar{I}_B \cdot 2R \quad // \quad R = 100k\Omega$$

$$3. U_n \stackrel{!}{=} U_p$$

$$4. \bar{I}_x = -\frac{\bar{I}_B \cdot 2R}{R} = -\bar{I}_B \cdot 2$$

$$5. \text{Kirchhoff} \rightarrow \bar{I}_x + \bar{I}_y - \bar{I}_B = 0$$

$$\bar{I}_y = \bar{I}_B - \bar{I}_x = \bar{I}_B + \bar{I}_B \cdot 2 = 3\bar{I}_B$$

$$6. \text{Maschengl.} \quad U_A + \bar{I}_x \cdot R - \bar{I}_y \cdot R = 0$$

$$U_A = \bar{I}_y \cdot R - \bar{I}_x \cdot R = R(\bar{I}_y - \bar{I}_x)$$

$$U_A = R(3\bar{I}_B - (-\bar{I}_B \cdot 2)) = 5\bar{I}_B \cdot R$$