Robbins' formulae [Cooper, 1987]**:**

$$tg\,\psi_2 = (1-e^2)tg\,\varphi_2 + e^2\,\frac{N_1 \sin\varphi_1}{N_2 \cos\varphi_2} \qquad (1)$$

$$\cot g\alpha_{12} = (\cos\varphi_1 tg\,\psi_2 - \sin\varphi_1 \cos\Delta\lambda)/\sin\Delta\lambda \qquad (2)$$

$$\sin\sigma = \sin\Delta\lambda \cos\varphi_2 / \sin\alpha_{12}$$

$$S = N_1\sigma\left\{\, 1 - \frac{\sigma^2}{6} h^2(1-h^2) + \frac{\sigma^3}{8} gh(1-2h^2) + \frac{\sigma^4}{120}[h^2(4-7h^2) - 3g^2(1-7h^2)] - \frac{\sigma^5}{48} gh \,\right\}$$

$$g^2 = \varepsilon \sin^2\varphi_1$$

$$h^2 = \varepsilon \cos^2\varphi_1 \cos^2\alpha_{12}$$

$$\varepsilon = e^2/(1-e^2)$$

The ellipsoidal azimuth of point 1 from point 2 may be obtained from the equations (1) and (2) by substituting suffix 1 for suffix 2 and vice versa.

Reference:

Cooper, M. A. R. (1987) Control Surveys in Civil Engineering. London, William Collins Sons & Co Ltd..