

$$\left\{ \begin{array}{l} \operatorname{tg} x_1 + \operatorname{ctg} x_1 = 3 \operatorname{tg} x_2 \\ \operatorname{tg} x_2 + \operatorname{ctg} x_2 = 3 \operatorname{tg} x_3 \\ \\ \operatorname{tg} x_n + \operatorname{ctg} x_n = 3 \operatorname{tg} x_1 \end{array} \right.$$