Sprawozdanie 1

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$$\begin{cases} 0 = Q_g - K_{cw}(T_{wew} - T_{zew}) - K_{cwp}(T_{wew} - T_p) \\ 0 = K_{cwp}(T_{wew} - T_p) - K_{cp}(T_p - T_{zew}) \end{cases}$$

$$\begin{cases} T_{wew} = \frac{Q_g + K_{cw}T_{zew} + 0{,}25T_pK_{cw}}{1{,}25K_{cw}} \\ T_p = \frac{0{,}2Q_g + 0{,}2T_{zew}K_{cw} + T_{zew}K_{cw}}{0{,}2K_{cw} + K_{cp}} \end{cases}$$

$$\begin{cases} T_{wew} = \frac{Q_g + K_{cw}T_{zew} + 0{,}25K_{cw}\frac{0{,}2Q_g + 0{,}2T_{zew}K_{cw} + T_{zew}K_{cw}}{0{,}2K_{cw} + K_{cp}}}{1{,}25K_{cw}} \\ T_p = \frac{0{,}2Q_g + 0{,}2T_{zew}K_{cw} + T_{zew}K_{cw}}{0{,}2K_{cw} + K_{cp}} \end{cases}$$

$$\begin{cases} T_{wew} = \frac{1000 + 23{,}53\cdot(-20) + 0{,}25\cdot 23{,}53\frac{0{,}2\cdot 1000 + 0{,}2\cdot(-20)\cdot 23{,}53 + (-20)\cdot 1{,}96}{0{,}2\cdot 23{,}53 + 1{,}96}}{1{,}25\cdot 23{,}53} \approx 20 \\ T_p = \frac{0{,}2\cdot 1000 + 0{,}2\cdot(-20)\cdot 23{,}53 + (-20)\cdot 1{,}96}{0{,}2\cdot 23{,}53 + 1{,}96} \approx 10 \end{cases}$$