

(iv)  $R_{212}^1$  is defined as a 6-term expression in C&P, p. 295. Patient work reveals that  $R_{212}^1 = -G \frac{\partial^2 G}{\partial \xi^{12}}$ . From the formula  $R(U, V)W = K(g(V, W)U - g(U, W)V)$ , with  $U = \partial_1$  and  $V = W = \partial_2$ , we deduce that  $R_{212}^1 \partial_1 + R_{212}^2 \partial_2 = K(G^2 \partial_1 - 0)$ , so  $K = \frac{-1}{G} \frac{\partial^2 G}{\partial \xi^{12}}$  (and  $R_{212}^2 = 0$ ).