We wish to establish $(\vec{c} \cdot \vec{d}) \vec{r} = \vec{c}$ $(\vec{c} \cdot \vec{d}) \vec{r} = Gi \partial_i r_j = Gi \delta_{ij} = G_j$ $(\vec{c} \cdot \vec{d}) \vec{r} = \vec{c}$