MATH 416, extra project 2

Show that if $M$ is an arbitrary integer and if $\{h(k) : k \in \mathbb{Z}\}$ is a CQF sequence (i.e., a sequence that satisfies the conditions listed on pages 151 and 152 of your text), then so is the sequence defined by

$$\forall\, k \in \mathbb{Z}, \quad g(k) = (-1)^k \overline{h(2M-1-k)}.$$