Let $B = \{b_1, b_2\}$ and $C = \{c_1, c_2\}$ be bases for a vector space $V$.

Also suppose that $b_1 = 3c_1 + 2c_2$ and $b_2 = c_1 - c_2$.

A. Find the change-of-coordinates matrix from $B$ to $C$.

B. Find $[x]_C$ for $x = b_1 + 2b_2$. 