7. Use the ideas in the proof of Cayley's Theorem to find permutations $a, b \in S_8$ which satisfy:
   $a^4 = 1$, $b^2 = a^2$, $ba = a^3 b$, and the permutations $a^i b^j$, with $0 \le i \le 3$ and $0 \le j \le 1$, are distinct.