Write (1) the definition of the creation and annihilation operators for the harmonic oscillator, (2) $[a, a^\dagger] = ?$, (3) $a^\dagger |n\rangle = ? |n+1\rangle$, (4) $a |n\rangle = ? |n-1\rangle$, and (5) $a^\dagger a |n\rangle = ? |n\rangle$.