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1. Evaluate $\int \int \int_E 6xy \, dV$, where E lies under the plane $z = 1 + x + y$ and above the region in the xy -plane bounded by the curves $y = \sqrt{x}$, $y = 0$, and $x = 1$.

2. Evaluate $\int \int \int_E x + y \, dV$ where E is the region lies inside $x^2 + y^2 = 16$ bounded by the xy -plane and $z = \sqrt{x^2 + y^2}$.