Q1. A hair dryer is basically a duct of constant diameter in which a few layers of electric resistors are placed. A small fan pulls the air in and forces it through the resistors where it is heated. If the density of air is 1.20 kg/m\(^3\) at the inlet and 1.05 kg/m\(^3\) at the exit, determine the percent increase in the velocity of air as it flows through the dryer.