Homework 11

Problems:

1. Each of two cylinders contain same mass of gas. Pressure in one cylinder is 4,000Pa, pressure in the other 6,000Pa. Find the pressure which will established if we connect the cylinders with a narrow tube (neglect the volume of the tube).

2. What is the density of nitrogen at $T=0^{o}C$ and pressure of $10^{5}Pa$.

3. After we let a certain amount of gas out of the cylinder, the pressure in the cylinder dropped by 40% and the temperature – by 20%. Find the fraction of the initial gas mass which was lost.3