



Figure 1.3. Data from a student experiment measuring the pressure of a fixed volume of gas at various temperatures (using the bulb apparatus shown in Figure 1.2). The three data sets are for three different amounts of gas (air) in the bulb. Regardless of the amount of gas, the pressure is a linear function of temperature that extrapolates to zero at approximately -280°C . (More precise measurements show that the zero-point does depend slightly on the amount of gas, but has a well-defined limit of -273.15°C as the density of the gas goes to zero.)