Question 1
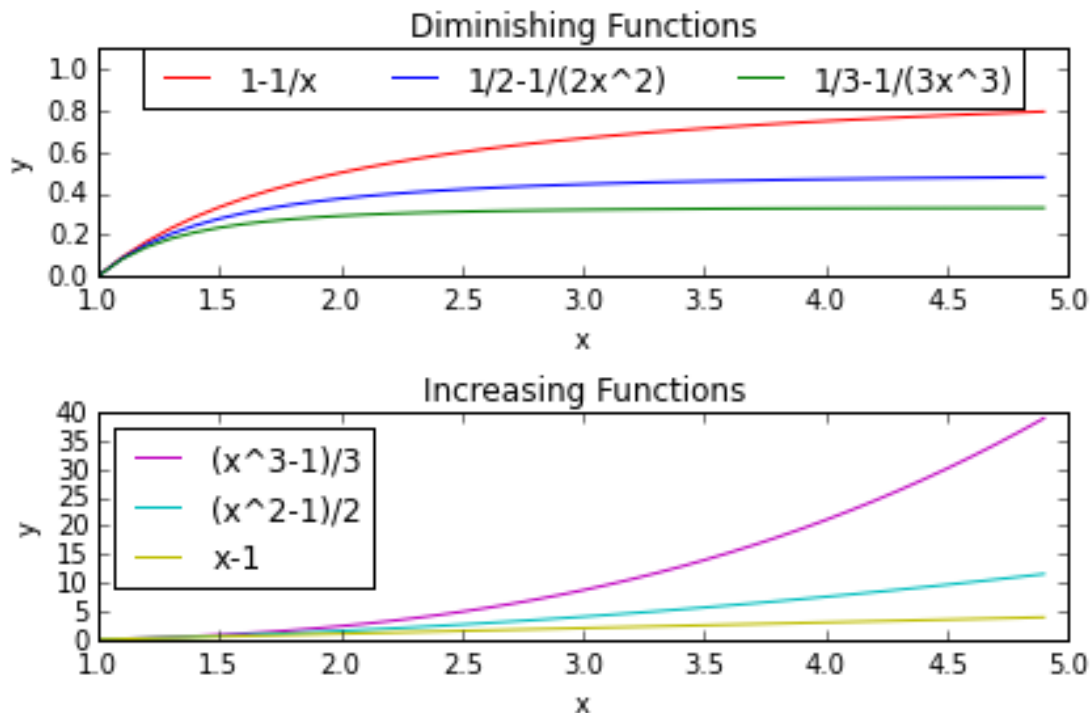
The purpose of this question is to write a python program (script) that plots six curves in two subplots of a single figure. For the legend of the first subplot use loc='center' and bbox_to_anchor=(0.5, 0.875), ncol=3) otherwise the legend will not fit inside the plot without hiding part of the curves. The figure should appear as follows.

You do not need to write any functions for this lab.

The value of X ranges from 1.0 to 5.0 in steps of 0.1.

One subplot contains the curves for the functions:
- $f1(X) = 1.0 - 1.0/X$
- $f2(X) = 0.5 - 1.0/(2 \times X^2)$
- $f3(X) = 1.0/3.0 - 1.0/(3.0 \times X^3)$

The other subplot contains the curves for the functions:
- $f4(X) = (X^3 - 1.0)/3.0$
- $f5(X) = (X^2 - 1.0)/2.0$
- $f6(X) = X - 1.0$

For each subplot include X and Y labels, a legend and a title. Save the figure as 'lab9q1.png'.