Homework 2 – Due Weds 31 Aug 5pm

4. For a three variable function

$$f(x,y,z) = 2\ln\left(\frac{1}{x}\right) + 3\ln\left(\frac{1}{y}\right) + \ln\left(\frac{1}{z}\right)$$

subject to the constraint

$$3x + 2y - \frac{1}{z} = 1$$

(a) Use **the Lagrange multiplier method** to find all critical point(s) of the function and the corresponding minimum value(s) of the function $f(x,y,z)$.

(10 marks)