HW-4

Problem-3

The net radiation imbalance observed across the latitudes create the meridional temperature gradient. Horizontal temperature gradient tends to introduce pressure gradients in the atmosphere which in turn produces atmospheric circulation. This atmospheric circulation continues until the tropical heat transferred to the cold polar region. Eventually, the meridional temperature gradient starts to reduce, and this process continues until the balance in the radiative heating and cooling process. This whole process can be analogous to the operation of the heat engine.