

EE314

Fall 2021

Name\_\_\_\_\_

Game 10

Let us do it together but each person does his/her work to report

At the upper reaches of our atmosphere, the energy density of solar radiation is approximately  $1,368 \frac{W}{m^2}$  (watts per square meter). At the Earth's surface, the energy density is reduced to approximately  $1,000 \frac{W}{m^2}$  for a surface perpendicular to the Sun's rays at sea level on a clear day.

Radius of earth is approximately 6,371 km

Radius of sun is approximately 695,700 km

Distance of Sun to earth is 149.6 million km

Your solution needs to be clear, and easy to follow

**Your task is to discuss is it possible to approximate the total energy of the sun based on what you have. Need to discuss/explain/show your answers This game is for in class, and you should do and finish it in class for the given time. Feel free to show/reflect your thinking**