Task 1 Provide a summary of the main concepts that went through about solar radiation (formulas are not needed)

Solar radiation is an energy that comes from the sun when a nuclear fusion reaction happens. Half of the radiation is in the visible short-wave part of the electromagnetic spectrum. The other half is mostly in the near-infrared part, with some in the ultraviolet part of the spectrum.
The units of measure are Watts per square meter.
Solar radiation hits the earth’s surface with two different beams: direct or diffuse. Direct solar radiation dipends on the orientation of the surface that is receiving the beams; diffuse radiation doesn’t consider the orientation and it can’t be focused. The sum of these two solar radiations is called global solar radiation.

Solar radiation absorption depends on some atmospheric components like water, hozone and carbon dioxide.

Task 2 create a pdf file with screenshots of all of the steps we went through in the second lesson on openStudio and explain briefly the reason behind the use of each step (in your own words!)

Here are the steps:

1. We drew a rectangle and then made an offset by 10cm inside of it. Then connected the angles of both of them with four diagonal lines;
2. Clic on “Create spaces from diagram” (botton on the up horizontal bar) and a volume appears;
3. Clic on “Info tool” (close to the previous botton) in order to see the properties of the new building;
4. Clic on “Inforce matching tool” to carry out the planes for windows;
5. Select the surfaces we want to have;
6. Create the external shading;
7. Choose the spaces of each thermal zone and add specifications;
8. Now it is necessary to use OpenStudio through SketchUpNext in order to add the weather data;
9. Run the model.