Oral Presentation

Fantine

In the statement, *(it is said that)* **we can read** : "As defined by the International Astronomical Union (IAU), the light-year is the product of the Julian year and the speed of light."

Here we know that a light-year is equal to a Julian year, which is 365.25 days multiplied by the speed of light which is 299,792,458 meters per second.

First we have to put everything in the same unity[1]. So 365.25 days is equivalent to 365.25 multiplied by 24 (because there is 24 hours in a day) then multiplied by 3600 (there *(is)* **are** 3600 seconds in an hour). It gives us 31,557,600 seconds.

Now to *(respond)* **answer** *(to)* the question, which is : "How many kilometers is a light year" we have to multiply 31,557,600 by 2599,792,458. It gives us 9,460,730,472,580,800 meters per year. So now we know how many meters there is in a light-year. But we need the result in kilometers so we divid**e** it by 1000 and we are left with 9,460,730,472,580. We can also round up this result to approximately 10 to the power of 12 or one trillion.

[1]We have to make units match, so whe must calculate how many seconds is a year.