Global Warming Contribution Calculation

After you have recorded the greenhouse gas emissions from each step and totaled the results, there's still one more step before you can decide which furniture set will have the highest impact on climate change. Not all greenhouse gases are equal. Some gases are able to capture more energy than others. For example, a kilogram of methane in the atmosphere will trap about 25 times more energy over a 100-year period than a kilogram of carbon dioxide. Therefore, it is said to have a global warming potential of 25. When scientists measure the impacts of greenhouse emissions, they often use the term "carbon dioxide equivalents." This is the basic unit for measuring the global warming potential of emissions. Since 1 kg of methane traps as much heat as 25 kilograms of carbon dioxide, that 1 kilogram of methane has a global warming potential of 25 kilograms of carbon dioxide equivalents. Now you can calculate the global warming potential of each of the three furniture sets. Use the following table to calculate the emissions for each dining set.

Calculating the Global Warming Contribution of Greenhouse Gas Emissions

Gas	Emissions (kg)	Global Warming Potential (100-year period)	Carbon dioxide Equivalents (kg CO_2-eq)
Plastic Resin Set			
Carbon dioxide		x 1	
Methane		x 25	
Nitrous oxide		x 300	
		TOTAL	
Aluminum Set			
Carbon dioxide		x 1	
Methane		x 25	
Nitrous oxide		x 300	
		TOTAL	
Pine Set			
Carbon dioxide		x 1	
Methane		x 25	
Nitrous oxide		x 300	
		TOTAL	