

Name _____

Ecological Footprint Analysis

	A	B	C
Country	Total Carbon Footprint-Carbon Dioxide Emissions in Metric Gigatons per year	Population in billions (2010)	Per Capita Carbon Footprint Per Capita Carbon Dioxide Emissions per Year (metric tons)
China	5.0	1.3	
India	1.3	1.2	
Japan	1.3	0.13	
Russia	1.5	0.14	
United States	6.0	0.31	
World	29	6.9	

1. Calculate the per capita carbon footprint for each country and for the world, and **complete the table. (formula is A/B =C)**
2. It has been suggested that a sustainable average worldwide carbon footprint per person should be no more than 2.0 metric tons per person per year. How many times larger is the U.S. Carbon footprint per person than (a) the sustainable level, and (b) the world average?

(a)

U.S. Carbon Footprint Per Capita= _____
 Sustainable level Carbon footprint Per Capita = _____
 Answer (a) = _____

(b)

U.S. Carbon Footprint Per Capita = _____
 World Average Carbon Footprint Per Capita= _____
 Answer (b) = _____

3. By what percentage will China, Japan, Russia, the United States, and the world each have to reduce their carbon footprints per person to achieve the estimated maximum sustainable carbon footprint per person of 2.0 metric tons per person per year? The instructor is solving the problem for China, you will need to do the remaining. **NOTE!** You cannot possibly answer this question unless you have completed the table above first.

China=3.8 metric tons per person -(minus) 2.0 (constant) metric tons per person = 1.8 metric tons per capita. 1.8 metric tons per person/(divided by) 3.8 metric tons per X 100 = 47%

Percentage reduction needed by China = 47%

Percentage reduction needed by Japan = _____

Percentage reduction needed by Russia = _____

Percentage reduction needed by United States = _____

Percentage reduction needed by World = _____