Analysis of MSW

Table 3.1 Generation and Recovery of Materials in MSW in the United States, 1994 (in millions of tons)[a]

Material	Weight Generated	Weight Recovered	Percentage of Generation
Paper	84.1	35	41.6
Glass	12.5	3.2	
Ferrous Metals	12.4		35.1
Aluminum		0.9	29
Nonferrous Metals	1.4	0.9	
Plastics	22.4	1.2	5.4
Rubber and Leather	6.9		12.5
Textiles	8.6	1.1	
Wood		0.7	6.0
Other Materials	3.9	0.9	
Food Wastes		0.6	2.6
Yard Trimmings	27.7		45.3
Miscellaneous Inorganics	3.3	Neg.	Neg.
Total Municipal Solid Waste	220.2	62.2	

Neg. = Less than 50,000 tons or 0.05 percent.
[a] Numbers in this table have been rounded to the first decimal place.
Source: U.S. Environmental Protection Agency, Characterization of Municipal Solid Waste in the United States: 1995 Update, EPA530-R-96-001 (Washington DC: U.S. EPA March 1996a).

Definitions:

Weight generated
the amount of materials and products as they enter the waste stream but before they enter an MSW waste management program that may include recycling and composting.

Weight recovered
the amount of materials removed from the waste stream for recycling or composting.

Percentage of generation
the percentage of material recovered for recycling or composting out of the total amount generated.

Questions:

1. Complete Table 3.1 above using the following formula:

$$\frac{\text{WEIGHT RECOVERED}}{\text{WEIGHT GENERATED}} \times 100 = \text{PERCENTAGE OF GENERATION}$$

2. List the five materials that are recovered the most for recycling and composting. Is this answer what you would have predicted? Why or why not?

3. List the five materials that are recovered the least. For each one, discuss the following: (1) Is this a valuable material to recover? (2) What might be stumbling blocks to recovering more of this material? (3) How might the amount recovered be increased?

4. Why do you think it is important to increase the amount of materials recovered in the waste stream for recycling or composting? Pick one or more materials, and discuss specific areas of importance.