

APES Practice Math Problem

How Much Paper Do You Use? The forested biomes of the world contain dozens of species of trees that are used for making paper products such as cardboard, newspaper, tissues, and paper for writing and printing. The average person in the United States consumes about 300 kg (661 pounds) of paper products per year, and 30 percent of those products consist of paper for writing and printing.

- (a) How much paper does the average person in the United States use annually for writing and printing?
- (b) Given that the U.S. population was 308 million people in 2009, how many kilograms of total paper products are used annually by the U.S. population?
- (c) If the average tree produces 30 kg (66 pounds) of writing and printing paper, how many trees would be used annually for this paper if all of the paper came from trees?
- (d) If 50 percent of all writing and printing paper could be made from 100 percent recycled paper, how many fewer trees would be needed for making paper?
- (e) About 18 million students attend college in the United States annually, and each of these students purchases new textbooks containing an average of 18 kg (40 pounds) of paper each year. If recycled paper is not used to make these textbooks, how many trees would be consumed annually to make textbooks?