

## Math 111 - Fermi estimations homework

For each problem, clearly write out your thought-process behind your estimation and provide references when appropriate.

1. How many miles will you walk on campus this academic year?
2. How many candy corns fill a two-liter bottle?
3. In his May 17, 2010 op-ed column in *The New York Times* Bob Herbert noted that the dropout rate for American high school students was one every 29 seconds.  
Is this number reasonable?
4. The EPA states that each American uses an average of 88 gallons of water a day at home.  
Is this reasonable?
5. Chester County schools now offer free breakfast to all of its K-12 students. While the U.S. Department of Agriculture will continue to reimburse the school district for free- and reduced-meal prices, the Chester County district is absorbing the cost of meals for students who would normally pay. How much will this cost the Chester County district?