

1) Convert 100 km/hr into mi/sec.

2a) How many pickles are consumed every year in America? Explain all the steps that went into your estimation.

b) If we stretched all the pickles from end-to-end, how long would they stretch? Answer in meters please.

c) What is the nearest astronomical landmark from the distance you discovered in part b?

3) How fast is the earth orbiting the sun? You may treat the earth's orbit as circular. You should leave your answer in km/hr.

b) Taking your answer from part a, express your answer in mi/hr.

c) Superman? Is he faster than a speeding bullet? How fast would someone on earth have to be flying to be traveling faster than this speeding bullet?

4) Which job pays better: A job that pays \$40,000 a year or \$12 per hour? Assume 40 hour work weeks. You may assume 45 working weeks per year. Justify your answer with calculations and reasoning.

5) I was listening to some Thelonious Monk (who's he?) today and he made me wonder: How many piano tuners are there in Boston? Explain your reasoning and calculations.

6) Americans are always on vacation or wanting to be on vacation. How many airplane flights do Americans take per year? Explain your reasoning and calculations.