

Physics 195

Name: \_\_\_\_\_

There are 3 problems. You must neatly show all of your work to receive full credit. Please hand this in at the beginning of class on Friday, August 27, 2010. Give all answers to 3 significant figures.

1. The printer paper wrapper used to print your syllabus states that this paper is  $75.0 \text{ g/m}^2$ . Calculate the mass of a single piece of this printer paper. Give your answer in both grams (g) and kilograms (kg).

Ans:
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2. At one point this summer, the Yellowstone River was flowing past a fisherman at 6311 cubic feet per second. Calculate the number of teaspoons of water that flowed past this fisherman standing in the river in 1 hour. There are about 3.785 liters in one gallon. There are exactly: 3 teaspoons in one tablespoon, 16 tablespoons in one cup, 2 cups in one pint, 2 pints in one quart, and  $1000 \text{ cm}^3$  in one liter.

Ans:
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3. The speed limit around campus is 15.0 miles/hour. Convert this speed to light years/decade. (A light year is the distance light travels in one year, and light travels at approximately 186,000 miles per second.)

Ans: