Lab Report: Air Pollution

Section:	Team number:
Team members:	
	cube, which measures 1.2 microns on each side. For significant environmental property of the particle.
Part 2: The Size Distribution Function 1. Describe clearly the meaning of the integral	$\int\limits_{p_1}^{p_2} rac{dN}{dp} dp$ in the context of this application.
2. Write down an integral that represents the microns would cause to be removed from the ai	number of particles that the current standard of 10 ir.
3. Write down an integral that represents the be removed if the standard were changed from	number of additional particles ($per\ cm^3$) that would 10 microns to 2.5 microns.

Part 3: Working with Real Data

1. Set up an integral that represents the total number of particles per cubic centimeter found in the atmosphere above Pasadena. Estimate the value of this integral, and explain how you made the estimation. Be sure to show any expressions you compute on your calculator (but use standard mathematical notation—not TI-83 notation). Is your estimate an over or under estimate? How do you know?

2. How many particles per cubic centimeter lie between .05 microns and .55 microns? Show the expression which must be computed and state briefly how you approximated its value.	
3. Under the proposed 2.5 micron standard, all particulate matter of diameter 2.5 microns and above should be filtered out of the atmosphere. What per cent of the total number of particulates would have been removed had this standard been followed in Pasadena? Explain briefly how you computed your answer.	